CONNECTICUT.

	Goods manufactured.	Product of one hundred looms per week.	Number of looms attended by each weaver.	Steam or water power.	Product of one hundred spinners per week.	Hours of labor per week.
1	Cotton goods					
2	Duck		1 to 6	Water		60
3	Duck		1 to 2	Water		66
4	Duck		2	Water		69
5	Duck and sail twine			Water		69
6	Ginghams and dress goods	27 inches, 19,800 yards.	4 to 6	Both	100,000 pounds.	66
7	Ginghams and dress goods		3 to 4	Both		66
8	Hosiery yarn			Both		69
9	Mosquito netting, etc., cotton		3 to 6	Water		65
10	Print goods	25,800 yards.	4 to 8	Both		66
11	Print goods	27,850 yards.	4 to 6	Water	90,000 pounds.	69
12	Print goods	24,000 yards.	4 to 8	Both	No. 36 yarn, 60,000 pounds.	69
13	Print cloth	23,000 yards.	5 to 8	Both		69
14	Print cloth	23,077 yards.	4 to 8	Both		69
15	Print cloth	21,000 yards.	4 to 10	Water	No. 37 yarn, 70,000 pounds.	66
16	Prints, sheetings, etc	30,300 yards.	5 and 6	Both	No. 22 yarn, 144,000 pounds.	69
17	Patent hard-laid twine			Water		69
18	Seine twine			Water		69
19	Seine twine and welting cord					69
20	Seine twine, cotton			Water		69
21	Seine twine and netting cord			Water		69
22	Sheetings	24,000 yards.	4 to 8	Water	131,400 pounds.	69
23	Sheetings	20,000 yards.	4, 5, and 6	Water	No. 33 yarn, 124,400 pounds. No. 43 yarn, 82,000 pounds.	66
24	Sheetings	17,000 yards.	4 to 6	Water		66
25	Sheetings	38½ inches, 33,000 yards.	4 to 6	Both	120,000 pounds.	69
26	Sheetings, etc	38½ inches, 22,200 yards.	4 to 8	Both	No. 54 yarn, 50,000 pounds. No. 43½ yarn, 80,000 pounds.	60
27	Sheetings, light	22,000 yards.	4, 5, and 6	Both	No. 45 yarn, 70,000 pounds. No. 34 yarn, 80,000 pounds.	66
28	Sheetings and print goods	38 inches, 18,360 yards. 28 inches, 16,100 yards.	4 to 8	Water	78,300 pounds. 126,100 pounds.	66½
29	Sheetings and drills	30,000 yards.	4 to 6	Both		60
30	Shirtings, cheviot, and denims	32,400 yards.	4 to 6	Both		69
31	Shirtings, white vestings, etc	18,600 yards.	5	Mostly water		66
32	Spool cotton			Both		60
33	Ticking, blue drills, and shirting stripes, cotton.		3 and 4	Water		66
34	Various kinds of cotton cloths		4, 5, and 6	Both	No. 40 yarn, 84,000 pounds.	72
35	Various kinds of fine cotton goods	24,000 yards.	4 to 6	Water	No. 45 yarn, 56,700 pounds.	66
36	Warp, cotton			Water		66
37	Warp, cotton			Both		69
38	Warp, cotton			Water		
39	Warp and yarns, cotton			Water		66
40	Yarn (for carpets)			Water		69
41	Yarns, cotton				No. 36 yarn, 65,000 pounds.	69

NEW YORK.

1	Cotton goods	Print cloths, 25,800 yards. Fine shirtings, 18,000 yards.	3 to 6	Water	Short mules, 62,500 pounds. Long mules, 80,000 pounds.	63½
2	Fine sheetings and shirtings	No. 32 yarn, 40 inches, 10,000 yards.	4	Steam	No. 35 yarn, 81,000 pounds. No. 21 yarn, 130,000 pounds.	66
3	Knit underwear			Both	150,000 to 180,000 pounds.	66
4	Knit underwear			Both	150,000 pounds.	66
5	Knit underwear			Both	105,000 pounds.	66½
6	Print cloths	30,000 yards.	4 to 6	Both	51,100 pounds.	66
7	Print cloths	22,000 yards.	4 to 6	Both		72
8	Print cloths	25,080 yards.	4 to 6	Steam	No. 28½ yarn, 80,000 pounds. No. 39½ yarn, 75,000 pounds.	66
9	Print cloths	22,000 yards.	4 to 6	Water	No. 36 yarn, 72,500 pounds.	66
10	Print cloths	26,400 yards.	4 to 6	Both		66
11	Print cloths		4 to 6	Water	No. 40 yarn, 83,700 pounds.	66
12	Print cloths	27,000 yards.	3, 4, and 5	Water	No. 42 yarn, 60,000 pounds.	66
13	Print cloths and cheese bandages	25,500 yards.	4 to 6	Water		72½
14	Sheetings and denims	24,000 yards.	3, 4, and 5	Water	No. 19 yarn, 135,600 pounds.	66
15	Sheetings	32,712 yards.	4 to 6	Both		60
16	Sheetings	32,600 yards.	4	Water	No. 20 yarn, 145,000 pounds.	66
17	Sheetings	30,720 yards.	5 and 6	Both	No. 25 yarn, 135,000 pounds.	66
18	Sheetings, light	Yard wide, 19,500 yards.	4 to 6	Water		72½
19	Sheetings, light	Yard wide, 31,560 yards.	Mostly 5	Both	No. 25 yarn, 121,080 pounds.	66

FACTORY LEGISLATION.

The factory system has stamped itself most emphatically upon the written law of all countries where it has taken root, as well as upon the social and moral laws which lie at the bottom of the forces which make written law what it is. With the exception, however, of laws relating to the purely commercial features of the factory system, the legislation which that system has produced has been stimulated by the evils which apparently have grown with it.

In a preceding chapter I have said that as a moral force and as a system the factory system of industry is superior to the domestic system, which it supplanted. Now, in order to consider intelligently the influence of this modern industrial system upon legislation, its evils must be brought into especial prominence, for in showing the effect of the system upon law its evils only are involved, not its merits as compared with the domestic system. It is the worst phases of society which gauge the legislation requisite for its protection. Laws other than those for the regulation of trade and the protection of rights and their definition are made for the restraint of the evil disposed, and do not disturb those whose motives and actions are right. We have a way of judging society by its worst products. This is very true of writers upon social topics; they are apt to select the worst by which to judge the whole. Parliamentary and legislative committees, raised with a view to passing or killing a factory measure and working for or against certain interests, have repeatedly adopted the plan of judging all by a few cases.

The social battles which men have fought have been among the severest waged for human rights, and they mark eras in social conditions as clearly as do field contests, in which more human lives have been lost, perhaps, but in which no greater human interests have been involved. Among these social contests may be classed the efforts of humane men to correct so-called factory evils.

At the time of the institution of the factory system there were but few laws relating to master and man upon the statute-books of England; those which did exist bore mostly upon criminal matters. One law was in force which had been considered by many an obstruction to advancement in the mechanic arts, but which under the factory system was to become the only point upon which, under prevailing sentiments, labor legislation could turn. This law was known as the "apprentice act", and was passed in 1562, during the reign of Elizabeth. It is to be found in 5 Elizabeth, c. 4. This law provided that no one should work in certain trades as journeyman until after an apprenticeship of seven years. It also instituted the custom of apprenticing pauper children by parish officers. Under the protection of law the worst practices grew up. The act referred to allowed apprentices to be worked from 5 a. m. to between 7 and 8 at night from March to September, and from September to March, as the law expresses it, "from the spring of the day" till the night closed in.

When the first cotton factories were erected in England, and before the steam-engine was sufficiently perfected to enable mills to be run by it, Derbyshire, Nottinghamshire, and Lancashire were selected as the best localities, because they abounded in water-courses sufficient for the supply of power. These factories became so numerous that the supply of children from their respective neighborhoods was soon found to fall far short of the demand. The reverse of this condition prevailed in the southern agricultural counties, where general misery existed on every side, and unprincipled poor-law guardians, anxious to rid their parishes as speedily as possible of pauper children, showed great eagerness to meet the requirements of large industrial establishments for cheap labor. Children were therefore transferred in large numbers to the north, where they were housed in pent-up buildings adjoining the factories and kept to long hours of labor. The work was carried on day and night without intermission, so that the beds were said never to have become cold, inasmuch as one batch of children rested while the other went to the looms, only half the requisite number of beds being provided for all.(a) Notwithstanding the evil disposition of poor-law guardians and of grasping employers, there is no doubt that the condition of these children was better under employment in mechanical industries than under a state of pauperism in agricultural districts. This, however, was no reason for the abuse of the innocents.

Another element entered into the causes which led to the employment of pauper children. When the first factories went into operation, it soon became apparent that there was in the minds of the people considerable repugnance to the employment of children in them; in fact, there was strong antipathy to factories themselves because they were innovations. The native domestic laborers considered themselves amply able to provide for their children, and so rejected the offers of liberal wages made by the mill-owners. For a long period it was by the working people themselves considered to be disgraceful for any father to allow his child to enter the factory; in the homely words of that day, that parent made himself "the town's talk", and the unfortunate girl so given up by her parents in after life found the door of household employment closed against her "because she had been a factory girl". It was not until the condition of portions of the working classes had been reduced that it became the custom with workingmen to eke out the means of their subsistence by sending their children to the mills. Until that sad custom prevailed the factories in England were worked by "stranger children", gathered together from the workhouses. Under the operation of the old apprentice system parish apprentices were sent, without remorse or inquiry, from the workhouses in England and the public charities of Scotland to the factories, to be "used up" as the "cheapest raw material in the market". This reprehensible method was systematically

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a English Factory Legislation, Edler von Plener, page 2.

practiced; the mill-owners communicated with the overseers of the poor for negotiations for supply. The general treatment of these apprentices depended entirely upon the will of their masters, and while some of the latter could not bury the natural feelings of sympathy for the unfortunate, and did all in their power to relieve want and suffering, the majority, in the infancy of the new system, did not comprehend the effects ill treatment of one generation might have upon the succeeding.

The introduction of steam as a motor in mills removed the necessity of erecting factories upon streams and allowed owners to build in or near populous towns, from which the needed supply of help could always be obtained. These towns were exempt from the general operations of the apprentice act, except as to parish apprentices.

Now for the first time appeared some of the consequences of congregated labor under the influence of simply natural forces without the restrictions of positive legislation. (*a*) A whole generation of operatives was growing up under conditions of comparative physical degeneracy, of mental ignorance, and of moral corruption. The great questions began to be asked, Has the nation any right to interfere? Shall society suffer that individuals may profit? Shall the next and succeeding generations be weakened, morally and intellectually, that estates may be enlarged?

These questions forced themselves upon the public mind, and the fact that pauper apprentices might be better off under such apprenticeship than in the workhouse could have no weight under the influence of the great religious and moral waves which swept over England in the last quarter of the last century. The truth began to dawn that in factories, as in nations or in families, if those who rule do so through the power of fear and the capacity to punish arbitrarily the result is a poor, cringing operative population or poor, cringing subjects.

The first man to ask such questions of parliament was Sir Robert Peel, in 1802. Sir Robert was a master manufacturer, to whom the new system had brought wealth and power and station, and to his immortal honor he sought to remedy the evils which he knew, from his own personal experience, had grown with the factory system. In 1802 he introduced a bill the object of which was to interfere by law with the natural tendencies of unrestricted competition in the labor of human beings. As the system which Peel's bill sought to regulate was from its infancy crude in its workings, so the legislation sought was crude and had no very far-reaching provisions; yet it aimed at the weakness of the new industrial order, and would, if successful, establish a principle in law which should influence the enactments of the legislatures of the world.

The friends of the new theory did not go beyond the regulation of the labor of parish apprentices. The bill was entitled "An act for the preservation of the health and morals of apprentices and others employed in cotton and other mills, and in cotton and other factories". Says the duke of Argyle:

> It is characteristic of the slow progress of new ideas in the English mind, and of its strong instinct to adopt no measure which does not stand in some clear relation to pre-existing laws, that Sir Robert Peel's bill was limited strictly to the regulation of the labor of apprentices; children and young persons who were not apprentices might be subject to the same evils, but for them no remedy was asked or provided.

Such is the power of precedent, which is too often only another term for tradition. "The notion," as to Peel's measure, was—

> that as apprentices were already under statutory provisions, and were subjects of a legal contract, it was permissible that their hours of labor should be regulated by positive enactment. But the parliament, which was familiar with restrictions on the products of labor, and with restrictions of monopoly on labor itself, which restrictions were for the purpose of securing supposed economic benefits, would not listen to any proposal to regulate "free" labor for the purpose of avoiding even the most frightful moral evils. These evils * * * were incident to the personal freedom of employers and employed. In the case of apprentices, however, it was conceded that restriction might be tolerated. And so through this narrow door the first of the factory acts was passed, (*b*)—

and the system, by unmistakable signs, stamped its influence upon the legislation of England. The conduct of men, both individually and collectively, as influenced by the natural course of events, is illustrated in the clearest light by the history of the first factory legislation.

In the first place, the principle which was deemed objectionable became prominent in factory legislation, for the old law of 1562, the apprentice act, heretofore an obstacle, became the very precedent the lawmakers of England must have before they could consent to protect human rights. Again, if the steam-engine had been invented earlier—if mills had not at first been erected upon streams away from the centers of population, thereby enabling poor-law guardians to reduce the pauperism of agricultural districts—it would be impossible to say how long the initiatory evils of the factory system would have been allowed to fester and impair the physical and moral well-being of a growing class, without even an assertion of the right of the nation to check the evils. The act of Sir Robert Peel, 42 and 43 Geo. III, cap. 73, while of no great practical value to the operatives, was of the greatest value to the world, for it made the assertion, which has never been retracted, that the nation did have the right to check not only open evils, but those which grow individually through the nature of employment. (*c*)

This first factory-legislation act of 1802 simply dealt with the unregulated employment of apprentices. By its provisions the employer was compelled to clothe his apprentices, whose work was now limited to twelve hours a day. Night work was entirely prohibited, with some minor exceptions, and every apprentice was to receive daily instruction during the first four years of his time, school attendance to be reckoned as working time. Religious

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a Reign of Law, p. 348. *b Ibid.*, p. 349. *c Reign of Law.*

instruction on Sundays was distinctly regulated, and some useful sanitary clauses were inserted in the law. Although this law was well digested, it proved inoperative in great measure, through want of the necessary provisions for carrying it into effect, the still undetermined state of the new manufacturing system, and the revolution wrought by the adaptation of steam to manufacturing purposes. This adaptation, as I have said, removed the necessity of erecting factories upon water-courses, and supplied a great desideratum, in many respects, by allowing their establishment in populous towns, whose needy inhabitants afforded a sufficient number of employés to satisfy the first requirements of manufacturers. Those children, therefore, whose parents resided in the neighborhood of such factories were admitted into them without participating in the protection provided in the act of 1802, because such children were not apprenticed under the act of 5 Elizabeth, or under the apprentice act.

The question of repealing this latter act now began to be agitated. Numerous petitions were sent to parliament for its repeal, both by masters and those who saw that if the apprentice act should be repealed a law must be passed that would protect all children at work in the factories; the masters saw that the repeal of the act of 5 Elizabeth rendered Peel's act of 1802 inoperative.

In 1814 the apprentice act was substantially repealed, and in 1815 Sir Robert Peel came back to parliament and told the country that the former act, that of 1802, "had become useless, that apprentices had been given up, but that the same exhausting conditions, from which parliament had intended to relieve apprentices, was the lot of thousands and thousands of the children of the free poor." In the following year (1816), pressing upon the house of commons a new measure of restriction, he added, that unless the legislature extended to these children the same protection which it had intended to afford to the apprentice class it had come to this, that the great mechanical inventions which were the glory of the age would be a curse rather than a blessing to the country. (*a*) The author of the *Reign of Law*, in commenting upon the early efforts in favor of the restriction of labor by legislation, says:

> Thus began the great debate which in principle may be said to be not ended yet; the debate, how far it is legitimate or wise in positive institution to interfere for moral ends with the freedom of the individual will? Cobbett denounced the opposition to restrictive measures as a contest of "mammon against mercy". No doubt personal interests were strong in the forming of opinion, and some indignation was natural against those who seemed to regard the absolute neglect of a whole generation, and the total abandonment of them to the debasing effects of excessive toil, as nothing compared with the slightest check on the accumulations of the warehouse. But the opposition was not due in the main to selfishness or indifference. False intellectual conceptions, false views both of principle and of fact, were its real foundation. Some of the ablest men in parliament, who were wholly unaffected by any bias of personal interest, declared that nothing would induce them to interfere with the labor which they called "free". Had not the working classes a right to employ their children as they pleased? Who were better able to judge than fathers and mothers of the capacities of their children? Why interfere for the protection of those who already had the best and most natural of all protectors? * * * Nor were there wanting arguments, founded on the influence of natural laws, against any attempt on the part of legislative authority to interfere with the "freedom" of individual will. The competition between the possessors of capital was a competition not confined to England. It was also an international competition. In Belgium, especially, and in other countries, there was the same rush along the new paths of industry. If the children's hours of labor were curtailed, it would involve of necessity a curtailment also of the adult labor, which would not be available when left alone. This would be a curtailment of the working time of the whole mill, and this would involve a corresponding reduction of the produce. No similar reduction would arise in foreign mills. In competition with them the margin of profit was already small. The diminution of produce from restricted labor would destroy that margin, capital would be driven to countries where labor was still free from such restrictions, and the result would be more fatal to the interests of the working classes of the English towns than any of the results arising from the existing hours of labor. All these consequences were represented as inevitable. They must arise out of the operation of invariable laws. Such were the arguments used in every variety of form, and supported by every kind of statistical detail, by which the first factory acts were opposed.

I have been quite explicit in stating these arguments, because in all subsequent movements they have been repeated again and again, and may be heard in debate in every session of legislatures in this country every time any proposition is made to protect labor.

The abolition of the apprentice system, by which the act of 1802 became useless, stimulated Peel and the friends of factory legislation to greater efforts, and in 1816 parliament instituted the first government inquiry into the condition of the factory population. It was not, however, till 1819 that a new law (59 Geo. III, c. 66) was enacted. This law established the right of the nation to limit the age at which children might be admitted to the factories. No child under nine years could be admitted, and the hours of labor were limited to twelve per day for children between nine and sixteen. This new law, unlike that of 1802, was applied to cotton-mills only, while the first applied to both cotton and woolen factories. While provisions of law relating to the education of factory children were to be commended, they were nevertheless what might be termed curiosities of legislation.

The greatest poverty and ignorance prevailed in the agricultural and mining districts of England, and after the reports of the poor-laws commissioners had exposed the demoralizing results of the want of education in the agricultural hamlets it was really a piece of singular effrontery on the part of the legislators to accuse the manufacturers of being the main authors of the miserable state of affairs found among the tillers of the soil, and to require the employers of factory labor, under heavy penalties, to be responsible for the education of all juvenile operatives whom they employed. Until a recent date law has insisted upon the education of factory children only, so far as England is concerned, and, whether from good or bad motives in the framers of such laws, the factory system has been made the central point upon which popular education in England has turned, and this accounts

a Hansard's *Parliamentary Debates*, vols. xxxi, xxxiii.

in a large degree for the superior intelligence of the factory population of that country when compared with those engaged in agriculture. In this very direction the influence of the new order of industry upon legislation is clearly marked.

From 1816 to the present time there has been no cessation in the attempts to regulate by law some of the conditions of labor. All the wonderful reports from parliamentary committees make in themselves a vast library of information and misinformation which cannot be briefed in this volume, and, in fact, it is not essential; for, as I have said, every legislative contest took on the same general features of attack and defense. It was not till 1847 that the friends of labor succeeded in passing a ten-hour law. After 1847 the provisions of the English factory acts were extended first to one industry and then to another, until now they comprehend many of the leading lines of production.

The principles involved in the earlier legislation were made to apply to the working of mines, in which great abuses in the employment of women and young children had become the rule. The amelioration of the horrid condition of the workers in the mines was the result of the influence of the factory system upon law. The care of the pauper children of England became the subject of the deepest solicitude from the same influence. The same is true of the education of the masses. The legislative provisions relative to chimney-sweeps and various special employments are all due to the same influence. The continental governments of course have been obliged to make regulations covering kindred subjects, but rarely have they kept pace with English legislation. America has enacted progressive laws so far as the condition of factory workers has warranted. It should be remembered that the abuses which crept into the system in England never existed in this country in any such degree as we know they did in the old country. Yet there are few states in America where manufactures predominate or hold an important position in which law has not stepped in and restricted either the hours of labor or the conditions of labor and insisted upon the education of factory children, although the laws are usually silent as to children of agricultural laborers.

It is not wholly in the passage of purely factory acts that the factory system has influenced the legislation of the world. England may have suffered temporarily from the effects of some of her factory legislation, and the recent reduction of the hours of labor to nine and one-half per day, less than in any other country, has had the effect of placing her works at a disadvantage; but in the long run England will be the gainer on account of all the work she has done in the way of legislative restrictions upon labor. In this she has changed her whole policy. Formerly trade must be restricted and labor allowed to demoralize itself under the specious plea of being free; now trade must be free and labor restricted in the interests of society, which means in the interest of good morals. The factory system has not only wrought this change, but has compelled the economists to recognize the distinction between commodities and services. There has been greater and greater freedom of contract in respect to commodities, but the contracts which involve labor have come more and more completely under the authority and supervision of the state.

Seventy-five years ago scarcely a single law existed in any country for regulating the contract for services in the interest of the laboring classes. At the same time the contract for commodities was everywhere subject to minute and incessant regulation. (*a*)

Factory legislation in England, as elsewhere, has had for its chief object the regulation of the labor of children and women; but its scope has constantly increased by successive and progressive amendments until they have attempted to secure the physical and moral well-being of the workingman in all trades, and to give him every condition of salubrity and of personal safety in the workshops.

The excellent effect of factory legislation has been made manifest throughout the whole of Great Britain. "Physically the factory child can bear fair comparison with the child brought up in the fields," and intellectually progress is far greater with the former than with the latter. Public opinion, struck by these results, has demanded the extension of protective measures for children to every kind of industrial labor, until parliament has brought under the influence of these laws the most powerful industries.

To carry the factory regulations and those relative to schooling into effect England has an efficient corps of factory inspectors. The manufacturers of England are unanimous in acknowledging that to the activity, to the sense of impartiality, displayed by these inspectors is due the fact that an entire application of the law has been possible without individual interests being thereby jeopardized to a very serious extent. It is also now freely admitted that factory legislation, wisely prepared, prudently applied, and ripened by experience, cannot be otherwise than productive of useful results nor do aught but exercise a salutary influence over the economical and moral conditions of labor. It is true that in a country where, in general, the moral condition of the working classes has presented the saddest of pictures such legislation has wrought an improvement in the morals and exerted a notable influence on the health and habits of the working classes. The field is still large, and all the virtues of public sentiment will be needed to influence wise regulations. Such legislation has also bestowed substantial advantages upon industry itself, since the work, being performed by cleverer hands, gains both in quality and in rapidity of execution.

While it may be impracticable to compel people by legislation to be moral, they can be surrounded by the best moral and sanitary conditions and their lives and their limbs can be protected. The legitimate field for legal

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a Hon. Francis A. Walker.

interference is very broad, and such interference has met with the highest judicial sanction. No argument of unconstitutionality can be made very effective in the premises.

The conditions belonging to the factory system are constantly forcing themselves into view as the levers which overturn old notions and establish precedents at variance with the opinions of judges. One of the greatest changes in the principles of law which the factory system has wrought is in relation to the liability of employers for injuries received by their workmen. The attempts to make employers thus liable have proceeded first from the factory, but have included the railroad in the list. A brief examination of this subject, one of the most interesting in relation to labor legislation, cannot be otherwise than profitable. The question as to how far employers shall be held liable in damages to their employés for accidents occurring through the negligence of co-employés is creating a good deal of discussion in England, and has, in a limited degree, already commanded attention in this country.

The common-law doctrine, both in England and in the United States, is that common employment relieves the employer from responsibility for the injuries which one employé may receive through the negligence of a co-employé, unless negligence can be shown in the employment of unfit agents. To be more specific, if a brakeman upon a train meets with an accident through the negligence of a switchman, although they are in no sense associated in their duties, the brakeman can have no redress against the company. A stranger, however, upon the same train could recover damages if an injury was sustained. The first time this doctrine was held by a court, so far as record shows, was in England, in Priestly *vs.* Fowler, in 1837, when it was laid down by Lord Abinger that the servant by implication contracts to run the risks incident to the service in which he engages. This doctrine, with that which holds that common employment relieves the employer of responsibility for damages resulting from negligence of co-employés, would have been held before, as the learned justice remarked, had the matter ever been brought before a court; that is, he held it to be the law, but occasion had not before offered for its announcement. The law, then, was judge-made, and it could not be overturned without legislation, for a precedent is sacred in the eyes of courts.

The same doctrine received a strong indorsement in the United States in 1842, in Massachusetts, in the case of Farwell *vs.* The Boston and Worcester Railway Company, when Chief Justice Shaw, in giving the decision of the supreme court, not only reiterated the doctrine laid down by Lord Abinger, but added much to the force of his lordship's reasoning by the extent of learning applied in the scope of the decision. To-day the ruling of Judge Shaw forms the leading citation, not only in this country, but in England. During the recent extended parliamentary contract for legislative interference with the doctrine of the courts Judge Shaw's decision constituted the main support of those who opposed any restriction of the doctrine. The language of this decision was incorporated into the report of a parliamentary committee raised to consider the question of employers' liability and used against a bill looking to legislative change in the common law.

The doctrine, as I have stated it, is the law of this land, with, I think, a single exception and some modifications. In Iowa, statute law provides that—

> Every railroad company shall be liable for all damages sustained by any person, including employés of the company, in consequence of any neglect of its agents, or by any mismanagement of its engineers or other employés of the company.

This law applies only to railroads, the common law applying in all other cases.

It is true in most countries that parties seeking work in factories or on railroads can make a special contract relative to damages in case of accident through the negligence of co-employés, but this privilege throws the burden on the shoulders of the workman.

The employer is now liable for two classes of injuries caused by fellow-workmen: when he has directly interfered in the act which caused the injury, and when by his negligence in selecting he has employed an incompetent workman. In all other cases, except where special legislative restriction exists, he is not liable for injuries to co-workmen unless by special contract he assumes to become liable; but the employer never, or rarely, suggests such contract; this must come from the workman.

It is now sought to change the status of the parties by legislative action and make the employer also liable for all injuries caused by his authorized agents in the legitimate performance of the duties which he has prescribed, such regulation to apply to industrial works and railroads. Such a law would place the necessity of proposing a special contract upon the employers, instead of upon the workman seeking employment. Legislatures in America have felt in some degree the influence brought to bear in favor of some law upon the subject.

In England the ancient doctrine has been reversed to a very large degree by the employers' liability act, passed in September, 1880. The new law is one of the most striking instances of the influence of the factory system upon legislation, for in its provisions it takes in various and important interests not strictly within the term. The English law of September 7, 1880, which falls far short of what was demanded, was the result of stormy debates and contests extending over a term of years, and its provisions mark a new era for good or evil in the great interests which have been developed through the perfection of the factory system. In brief, the law provides that when personal injury is caused to a workman by reason of any defect in the ways, works, machinery, or plant connected or used in the business of the employer; or by reason of the negligence of any person in the service of the employer who has any superintendence intrusted to him, while in the exercise of such superintendence; or by reason of the negligence

of any person in the service of the employer to whose orders or directions the workman at the time of the injury was bound to conform, and did conform, when such injury resulted from his having so conformed; or by reason of the act or omission of any person in the service of the employer done or made in obedience to the rules or by-laws of the employer, or in obedience to particular instructions given by any person delegated with the authority of the employer in that behalf; or by reason of the negligence of any person in the service of the employer who has charge or control of any signal points, locomotive engine, or train upon a railway; in all these cases the workman shall have the same right of compensation and remedies against the employer as if he had not been a workman of or in the service of the employer. These are the main features of the latest legislative phase of factory agitation; and although the law provides for several exceptions, yet it completely reverses the old order of things—the judge-made law—which put the workman on a separate basis from the stranger.

The new doctrine must of course be recognized more fully in our courts, or more probably in our legislatures, and with such recognition there will come a change in the relations of employers and employed, the nature of which in its indirect and permanent effects it is difficult to foresee. It is the most difficult question of all those which have grown out of the factory system, and calls for much wise statesmanship. Every one admits the justice of some regulation; and to adjust all parts of it and do no great injustice will tax the ingenuity of our lawmakers. While the question of employers' liability is the most important one to grow out of the factory system, it is the latest one of magnitude.

A brief digest of the factory laws of different countries must be of value in a report upon the factory system as indicative of the influence of the system outside the channels of business.

In no other country is there so elaborate a code of factory laws as the "British factory and workshop act" of 1878, 41 Vict., chap. 16, it being an act consolidating all the factory acts since Sir Robert Peel's act of 1802.

GREAT BRITAIN.—The following is an analysis of the factory and workshop act of 1878 so far as it applies to textile factories:

Sanitary provisions.

Every factory to be kept in a cleanly state, free from effluvia, etc., to be well ventilated, not to be overcrowded.

If an inspector observe a nuisance, he must report to sanitary authority.

Inspector authorized to take medical officer of health, etc., with him into the factory.

Every factory to be limewashed once in fourteen months, unless painted in oil once in seven years, when it must be washed once every fourteen months.

The secretary of state may exempt from this provision any class of factory, or part thereof, not requiring it for the purpose of cleanliness.

A child, young person, or woman not to be employed in wet-spinning, unless means are taken to prevent their being wetted and to prevent the escape of steam.

Safety and accidents.

Hoist or teagle, steam-engine, water-wheel, and mill gearing to be securely fenced.

Inspector may give notice of machinery or of a vat or pan containing hot liquid, or metal, considered to be dangerous, or grindstone fixed in a faulty manner. Provisions made for submitting question to arbitration.

Employment of a child in cleaning machinery in motion, and of a child, young person, or woman in cleaning mill gearing in motion, prohibited.

Employment between fixed and traversing parts of a self-acting machine forbidden.

Notice of accidents to be sent to the inspector and certifying surgeon: if fatal; if caused by machinery moved by power, or vat or pan, and so as to prevent the injured person returning to his work for forty-eight hours after the accident, the certifying surgeon to report the same to the inspector.

If any person suffer bodily injury from neglect of fence, machinery, etc., required to be fenced, the occupier is liable to a penalty of £100, which may be applied by the secretary of state for the benefit of the injured person.

Employment and meal hours.

A child, young person, or woman not to be employed except during period of employment stated in notice.

Young persons and women.

The period of employment, inclusive of meal hours, shall be either between 6 a. m. and 6 p. m. or between 7 a. m. and 7 p. m.

On Saturday, when work commences at 6 a. m., if not less than one hour be given for meals, manufacturing processes must cease at 1 p. m. and all other work at 1.30 p. m. If less than one hour be given for meals, manufacturing processes must cease at 12.30 p. m. and all other work at 1 p. m.

On Saturday, when work commences at 7 a. m., manufacturing processes must cease at 1.30 p. m. and all other work at 2 p. m.

If the occupier of a factory be of the Jewish religion, and close his factory on Saturday until sunset, he can employ young persons and women until 9 p. m. on Saturday.

All young persons and women must have two hours for meals during the period of employment, of which one hour must be given before 3 p. m.

On Saturday at least half an hour must be given.

A young person or woman not to be employed for more than four hours and a half without an interval of half an hour.

Children.

Children are to be employed either morning or afternoon, or on alternate days.

The period of employment for a child begins and ends the same as for a young person.

Children in the morning set must cease work at the dinner hour, but not later than 1 p. m.

Children in the afternoon set begin at the end of the dinner time, but not earlier than 1 p. m.

Children may work on Saturdays as young persons.

A child shall not be employed on Saturday in two successive weeks, nor on Saturday in any week if on any other day in the week he has worked more than five hours and a half.

Children working on alternate days may work as young persons, but must not work on two successive days, nor on the same days in two successive weeks.

When a child is employed as a young person, he must have the same intervals for meals as a young person.

A child not to be employed more than four hours and a half without an interval of half an hour.

Holidays.

Every child, young person, and woman shall be allowed the following holidays:

The whole of Christmas day and the whole of Good Friday; or, instead of Good Friday, the next public holiday under the holidays extension act, 1875.

Notice must be given of such holidays, and be fixed up in the factory.

A half-holiday shall comprise one-half of the period of employment on some other day than Saturday.

A child, young person, or woman shall not be employed on any day or part of a day set apart for a holiday.

In Scotland, instead of Christmas day and Good Friday, two days shall be set apart for holidays, separated by an interval of three months, one of which shall be the day set apart for the Sacramental Fast of the parish, or some other day substituted therefor by the occupier.

Eight half holidays, or equivalent whole holidays, of which half shall be given between 15th March and 1st October following.

In the factory of a Jew, in which all the persons employed are Jews, two bank holidays may be given instead of Christmas day and Good Friday.

In Ireland the 17th of March must be given, and will reckon as two of the eight half-holidays.

Education of children.

The parent of a child shall cause such child to attend a recognized efficient school, which may be selected by himself.

A child, when employed in a morning or afternoon set, shall attend school for one school attendance on each day of every week during any part of which he may be employed.

A child when employed on alternate days must attend school for two school attendances on each alternate day.

Attendance at school must be between 8 a. m. and 6 p. m.

A child is not required to attend school on Saturdays, or on any holiday or half-holiday in pursuance of this act.

Non-attendance caused from sickness, etc.

When there is not a certified school within two miles of the child's residence, the child may attend some other school temporarily approved by an inspector.

A child who has failed to attend school regularly cannot be employed the following week unless the deficient attendances be made up.

The occupier shall obtain certificates from a schoolmaster of the school attendance of the children employed in his factory, and keep such certificates for two months and produce the same to the inspector.

The school managers may apply in writing to an occupier to pay the school fees, not exceeding 3*d.* per week, or one-twelfth of the wages of a child, which the occupier may deduct from the wages of the child.

When a child of thirteen has obtained a certificate of proficiency either of having passed the prescribed standard, or of having attended school the prescribed number of attendances, he is deemed to be a young person.

Certificates of fitness for employment.

A person under sixteen shall not be employed for more than seven, or, if the certifying surgeon resides more than three miles from the factory, thirteen working days, unless the occupier has obtained from the certifying surgeon a certificate in the prescribed form of the fitness of employment of such person.

A certificate of fitness shall not be given unless a certificate of birth be produced, or other proof of real age.

When an inspector considers any person under sixteen unfit to work, he may give notice to the occupiers, and the person shall not be employed more than seven days, unless certified by the certifying surgeon to be fit for work.

An inspector may annul a certificate of a certifying surgeon if certificate of age of the person named therein was not produced if he think the person under the age named in the certificate.

When a child becomes a young person, a fresh certificate of fitness must be obtained.

A certificate of fitness shall only be granted on personal examination.

The same certificate of fitness may be valid for all the factories in the occupation of the same occupier in the district of the same certifying surgeon.

A certifying surgeon shall examine persons only at the factory where such persons are employed, unless the number of children and young persons is less than five, or unless specially allowed by an inspector.

Certifying surgeons to be appointed by an inspector.

Fees to be paid to the certifying surgeon.

Where there is not a certifying surgeon within three miles, the poor-law medical officer to act as certifying surgeon.

Regulations as to meal times.

All children, young persons, and women to have the times allowed for meals at the same periods of the day.

A child, young person, or woman is not allowed to remain in any room where a manufacturing process is being carried on, or to be employed during a meal time.

Notice of meal hours to be fixed up—of hours of work, etc.

Prohibitions of employment.

A child shall not be employed under the age of ten years.

A child, young person, or woman shall not be employed on Sunday; but

If the occupier be of the Jewish religion, and close his factory on Saturday, both before and after sunset, a Jewish young person or woman may be employed on Sunday the same as if Sunday were Saturday.

Overtime and night-work.

Male young persons of sixteen years of age may be employed in lace factories between 4 a. m. and 10 p. m., under certain conditions.

If the occupier be of the Jewish religion and keep his factory closed on Saturday, both before and after sunset, he may employ the young persons and women one hour on every other week day, but not before 6 a. m. or after 9 p. m.

Secretary of state may authorize employment of young persons and women to recover lost time in water-mills at the rate of one hour per day, for not exceeding ninety-six days in case of drought and not exceeding forty-eight days in case of flood.

The secretary of state, where cleanliness, etc., is deficient, may, by order, direct the adoption of special means as a condition of the exceptional employment.

Where an exception has been authorized, and it is found to be injurious to health, the secretary of state may by order rescind such exception.

Miscellaneous regulations.

Notice to be hung up of times of work and meals:—Abstract of act. Names of inspectors and certifying surgeons. Clock by which hours of work are regulated.

Notice of special exception to be hung up, and notice to be sent to inspector.

When working under special exception, same to be entered in a register.

Register of young persons under sixteen years of age to be kept, with details, as prescribed by the secretary of state. Extracts to be sent when required to the inspector.

Hours of work to be regulated by a public clock.

Any person in a factory while machinery is in motion deemed to be employed, unless the contrary be proved.

Occupier of factory to send notice to inspector within one month of commencing to work a factory.

Inspectors of weights and measures authorized to examine weights and measures used for checking wages, etc.

AUSTRIA-HUNGARY.—The factory laws and regulations are found in the factory law of December 20, 1859, and the Hungarian trade and manufactory law of 1872, of which laws the following is an analysis:

The regulations relating to workmen employed in trading establishments have equal force in the case of factory workmen.

The proprietor of a factory is bound to keep a regular register, showing the name, age, birthplace, occupation, and wages of every workman employed by him, and to produce this register whenever called upon to do so by the authorities.

A table is to be hung up in each workshop, in which the following information is to be contained:

(*a*) The disposition and employment of the workmen, and particularly the manner in which the women and children are occupied as bearing upon their bodily strength, and, in the case of children, on their school duties.

(*b*) The duration of working hours.

(*c*) Regulations relating to the settlement of accounts and payment of wages.

(*d*) Rights accorded to the workmen.

(*e*) Treatment of workmen in case of illness or accident.

(*f*) Fines for transgression of the factory regulations.

(*g*) The period of giving notice and cases in which contracts may at once be declared void.

A duplicate of this table is to be given to the authorities.

Every proprietor of a factory is bound, at his own expense, to make all arrangements and to take all possible measures for securing the life and health of his workmen in the exercise of their duties.

The education laws require that children under ten years of age shall in no case be allowed to work in factories, and children over ten, but under twelve years, only with the consent of the authorities.

This consent is only to be given when regular attendance at school can be combined with factory employment, or when arrangements are made by the employer for the education of the children by establishing schools in accordance with the regulations of the educational authorities.

Children above twelve but under fourteen years of age may only be employed in factories at the most for eight hours a day.

Young workmen who have passed their fourteenth year, but are under sixteen, may only be employed for ten hours a day.

Workmen under sixteen years of age may, in general, only be employed on work which in no way injures their health and is not prejudicial to their physical development.

A law relating to night-work of apprentices is also applicable to factory workmen under sixteen years of age.

The workmen are to be allowed half an hour's rest in the morning and afternoon and a whole hour at midday.

In factories where work is carried on day and night the proprietor is bound to take proper precautions for the employment by relays of workmen whose services are required at night.

Day-work may not begin before 5 a. m. nor be extended beyond 9 p. m.

The employer is bound to pay his wages in ready money, and regularly once a week, unless some other arrangement is made. He may not supply the workmen with goods or spirits on credit; but he may furnish his workmen, should the latter agree, with lodging, firewood, use of the soil, regular board, medicines, and medical assistance, and deduct the cost on payment of the wages. He may also, on the same conditions, supply his workmen with the tools and materials necessary for the make of articles produced in his factory, in cases where the workmen are bound by contract to supply such tools and materials on their own account.

Claims for goods supplied to workmen on credit, contrary to the existing regulations, cannot be enforced by the employer by legal measures, nor by reckoning them against wages that may be due.

Contracts which contain any clauses contrary to the last three provisions have no binding force.

Arrangements, too, concluded between employer and workmen, according to which the latter are obliged to obtain their daily wants at particular shops, or to expend part of their wages for any purposes other than the amelioration of the position of the workmen, are not considered valid.

The factory authorities are bound to allow the establishment to be visited from time to time by persons sent for that purpose, and to assure themselves that the regulations of the law are duly observed.

Certain articles in proposed new factory law (1882).

Children under twelve years of age must not be employed in regular trades. Children between the ages of twelve and fourteen can be employed at the most for six hours a day, and their employment must not interfere with their attendance at school.

Young workmen who have passed their fourteenth year, but are under sixteen, and also women between the ages of sixteen and twenty-one, can only be employed for ten hours daily.

In the event of any unforeseen occurrence or accident interfering with the regular course of business or necessitating increased work, the trade authorities can permit an extension of time, not exceeding an hour, for a period of four weeks at the most.

The minister of commerce is empowered to prohibit or restrict the employment of young workmen and women in trades which are dangerous or injurious to health.

Young workmen or women between sixteen and twenty-one must not be employed before 5 o'clock in the morning or after 9 o'clock in the evening, and there must be an interval of an hour's rest between the hours of labor.

The minister of commerce can, however, modify this rule for certain trades, in conjunction with the chambers of commerce and trade inspectors and the sanitary authorities, but the total time of employment must never exceed the maximum fixed as above.

Women must not be employed during the six months following their confinement.

Young workmen and women between the ages of sixteen and twenty-one must not be employed on Sundays and holidays, except in cases where the work cannot possibly be interrupted or deferred.

Traders who employ young workmen must keep a register showing their names and ages and the names and addresses of their parents or guardians, and also the dates of their first employment and discharge. This register must be hung up in the place where the work is carried on, and the trade authorities must be furnished with a copy.

FRANCE.—The hours of labor for adults in factories, etc., permitted by the laws of France are twelve daily.

A bill to reduce them to ten was last year submitted to the legislature by a deputy, but it was rejected; and the same deputy thereupon introduced a measure (not yet carried) to provide for the more strict fulfillment of the law as it stands. In Paris the law is executed, and is fairly applied in most of the northern and eastern departments, at least as regards the large mills, but doubts seem to exist as to its strict observance in the Lyons and Marseilles districts, and supervision would appear to be thought inadequate for insuring its proper application in the smaller workshops in the provinces.

The employment of children is prohibited until they have attained the age of twelve in the case of boys and sixteen in that of girls, except in certain specified descriptions of labor, in which it is allowed to employ boys between the ages of ten and twelve, on condition, however, of the working hours not exceeding six daily and being divided by a period of rest.

Night-work, viz, between the hours of 9 p. m. and 5 a. m., is forbidden for boys below the age of sixteen and for girls under twenty-one years of age. But under exceptional circumstances this restriction may be temporarily suspended and permission extended to the employment of boys under twelve years of age, such exceptional circumstances to be determined by the local committee or by the inspector. On Sundays and holidays children are not allowed to work, but an exception is made in the case of factories where it is necessary to keep fires going continuously, indispensable labor being then permissible on such days, and also at night.

Female labor is forbidden underground, nor is such work allowed for boys below the age of sixteen. Certain exceptions exist, however, where boys of twelve may be employed below the surface, but the duration of their labor must not exceed eight hours out of the twenty-four, with an interval of at least one hour's rest.

GERMANY. (*a*)—The settlement of relations between trade employers and their work-people is a subject for free agreement, subject to the restrictions founded by imperial law.

Employers cannot oblige their work-people to work on Sundays and holidays. Works of such a nature as not to permit of an interruption or postponement do not come under the above provision.

The local governments are to determine as to what days are holidays.

Children under twelve years of age may not be employed in factories.

The employment of children under fourteen years of age may not exceed the period of six hours a day.

Children who are obliged to attend the national school may only be employed in factories if they are present at least three hours a day in the national school, or in a school approved of by the educational inspectors, and where a regular course of education is conducted in a manner approved by the latter.

Young persons between the ages of fourteen and sixteen may not be employed in factories for more than ten hours a day.

Women may not be employed during the three weeks following their confinement.

The hours of labor for juveniles (children under twelve) may not begin before 5.30 a. m. nor continue after 8.30 p. m. Regular intervals must occur between the hours of labor on every working day. These rests must be of half an hour's duration for children and of an hour's for young persons between the ages of fourteen and sixteen, at midday, and of at least another half hour both morning and afternoon.

During the "rests" the juvenile work-people may not be employed at all in the work of the factory, and may only remain in the working rooms if those portions of the machinery or business in which juveniles are employed are completely stopped during the period of the rest.

On Sundays and holidays the juvenile working people may not be employed during the hours appointed by the regular clergyman for instruction in catechism, confirmation, confession, or communion.

The employment of a child in a factory is not permitted unless a "work-card" has been first sent in to the employer. A "work-book" is not necessary in addition to this. Work-cards are issued free of cost and stamp by the local police authorities, on the request or with the permission of the father or guardian; should the father's statement not be obtainable, the communal authorities may supplement his consent. They must state the name, day and year of birth, as well as the religion of the child, the name, occupation, and last residence of the father or guardian, and, in addition, the steps taken to comply with the legal educational requirements.

The employer must keep the work-card, produce it at any moment on an official demand, and at the completion of the term of agreement return it to the father or guardian. If the father's abode cannot be discovered, the work-card must be returned to the mother or nearest relations.

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a Law respecting trades regulations, July 17, 1878.

When juvenile work-people are to be employed in a factory, the employer must inform the local police authorities in writing before the commencement of their term of employment.

In the announcement of the factory, the week days on which they are to be employed, the beginning and end of the hours of work, and the rests, as well as the nature of the work, must be given. No change in the above may be made, except postponements, consequent upon the replacement of workmen in individual branches of the work before the necessary further notice has been given to the authorities.

The employer must take care that in every factory in which juvenile work-people are employed a list must be hung in a conspicuous place in the rooms they are working in, containing the names of the juvenile work-people, as well as the days on which they are employed, the hours of commencement and termination, and the rests. He must also provide that a table be hung up in these rooms containing an extract, in the form determined on by the central authorities, and clearly written, of the regulations relative to the employment of juvenile work-people.

Should any natural occurrence or accident interrupt the regular work of the factory, exceptions to the limitations prescribed may be admitted by the administrative authorities during a period of four weeks, and by the chancellor for a still longer time. In important cases of this nature, and for the prevention of accidents, the local police authorities can also permit such exceptions, but at the utmost for not more than fourteen days.

If the nature of the work or consideration for the work-people in separate factories makes it appear desirable that the working hours for juveniles should be settled otherwise than in the manner prescribed above, a further regulation relative to the "rests" may be allowed on request by the administrative authorities, and in other respects by the imperial chancellor. In such cases, however, juveniles must not be employed for longer than six hours, unless "rests" of at least an hour in all are allowed between the working hours.

Orders issued in accordance with the above conditions must be made in writing.

The employment of juveniles or women in particular branches of manufacture which are attended with danger to the health or morals may be altogether forbidden by decision of the bundesrath or made dependent on certain conditions. Night-work, especially for women, may be forbidden in certain branches of manufacture.

Exceptions to the restrictions prescribed as to children can also be admitted by decision of the bundesrath as regards spinning-mills, factories worked with uninterrupted furnaces, or which, from the nature of the work, have a regular course of day and night labor, and also as to those whose working does not permit of a division into regular shifts of equal duration, or whose nature limits them to certain seasons of the year. In such cases, however, the working hours for children must not exceed 36 hours a week, and for young persons 60; in spinning-mills, 66.

The steps taken in accordance with the decision of the bundesrath must be laid before the reichstag at its next session, and are to put out of force should the reichstag so desire.

Special officials, inspectors, named by the governments, either alone or in addition to the ordinary police authorities, are charged with the supervision of the carrying out of these conditions. In the execution of this supervision they have the same official rights as the local police authorities, especially that of inspecting the factory at any time. They are bound, except as to giving notice of illegalities, to keep secret any knowledge which they may obtain officially connected with the business or working of the factories under their supervision.

Matters of competency between these officials and the ordinary police authorities are left to the several states of the union to be determined constitutionally.

The said officials must send in yearly reports of their official proceedings. These reports, or extracts from them, must be laid before the bundesrath and the reichstag.

Districts in which no factories, or factories only to a limited extent, exist may, on the petition of the government of the country, be excepted by the decision of the bundesrath from the appointment of such special officials.

The employers must allow the inspections, in accordance with the provisions of law, of factories to take place at any hour when they are at work, even in the night.

A brief summary of the factory laws of the different states will indicate to what extent the principles of English factory legislation have been adopted in America. The states named are the only ones in which factory laws exist.

MAINE.—No child can be employed or suffered to work in a cotton or woolen manufactory without having attended a public or private school, if under the age of twelve years, four months; if over twelve and under fifteen years of age, three months of the twelve next preceding such employment each year. A teacher's sworn certificate of attendance, filed with the employer, constitutes the proof of schooling. A fine of $100 is imposed for a violation on the part of the employer of the provision of the law.

No person under the age of sixteen years can be employed by any corporation more than ten hours of a day. The penalty for violating this provision is $100.

Factories more than two stories in height, where workmen are employed above the first story, must be provided with outside fire-escapes satisfactory to municipal officers. (See chap. 48, Revised Statutes; chap. 221, acts of 1880; chap. 49, acts of 1881.)

NEW HAMPSHIRE.—No child under fifteen years of age shall be employed more than ten hours per day without written consent of parent or guardian. No person to be employed more than ten hours per day, except in pursuance of express contract requiring longer time. No child under ten to be employed by any manufacturing corporation. Children under sixteen not to be employed in factories unless they have attended school twelve weeks during preceding year, and no child under said age shall be employed (except in vacation time) who cannot write legibly and read fluently in the readers of third grade. No child under fourteen to be employed unless he has attended school six months, or the school of his district the whole time it was kept; and no child under twelve who has not attended the school of his district the whole time it was kept. (See General Statutes, chap. 187; chap. 21, acts of 1879; chaps. 42 and 56, acts of 1881.)

VERMONT.—Children under ten not to be employed at all; under fifteen, not more than ten hours per day; between ten and fifteen, not to be employed in mill or factory unless they have received three months' schooling the preceding year. (See General Statutes, chaps. 40 and 202.)

MASSACHUSETTS.—No child under ten years of age shall be employed in any manufactory, mechanical, or mercantile establishment in the commonwealth. No child under fourteen years of age shall be so employed, except during the vacations of the public schools, unless during the year preceding such employment he has for at least twenty weeks attended some public or private day school; nor shall such employment continue unless such child in each and every year attends school as aforesaid; and no child shall be so employed who does not present a certificate, made by or under the direction of the school committee, of his attendance at school as provided.

Employers shall require and keep on file a certificate of the age and place of birth of every child under sixteen years of age employed and the amount of his school attendance during the year next preceding such employment.

The penalty for employment of children contrary to these provisions is not less than $20 nor more than $50. Truant officers are obliged to visit establishments and inquire into the situation of the children employed, and may demand the names of children and the certificates of age and school attendance. Children under fourteen years of age who cannot read and write are not to be employed while public schools are in session; parents or guardians permitting such employment are subject to a fine of not less than $20 nor more than $50.

Employers requiring from employés, under penalty of forfeiture of wages earned, a notice of intention to leave shall be liable to like forfeiture if employé be discharged without similar notice.

Whoever by intimidation or force prevents or seeks to prevent a person from entering into or continuing in the employment of a person or corporation shall be punished by fine of not more than $100.

Employers are not to contract with employés for exemption from liability for injuries resulting from employers' own negligence.

No minor under eighteen years of age and no woman shall be employed in laboring in any manufacturing establishment more than ten hours in any one day, except when it is necessary to make repairs to prevent the interruption of the ordinary running of the machinery, or when a different apportionment of the hours of labor is made for the sole purpose of making a shorter day's work for one day of the week; and in no case shall the hours of labor exceed sixty in a week. The penalty for a violation of this provision is not less than $50 nor more than $100.

The belting, shafting, gearing, and drums of all factories, when so placed as to be dangerous to persons employed therein while engaged in their ordinary duties, shall be as far as practicable securely guarded. No machinery, other than steam-engines, in a factory shall be cleaned while running, if objected to in writing by an inspector. All factories shall be well ventilated and kept clean. The openings of all hoistways, hatchways, elevators, and well-holes upon every floor of a factory or mercantile or public building shall be protected by good and sufficient trap-doors or self-closing hatches and safety-catches. All elevator cabs or cars shall be provided with some suitable device for securely holding the cabs in case of accident to the hoisting machinery.

All manufacturing establishments, three or more stories in height, in which forty or more persons are employed, unless supplied with a sufficient number of tower stairways, shall be provided with sufficient fire-escapes, properly constructed upon the outside thereof, and connected with the interior by doors or windows, with suitable landings at every story above the first, including the attic, if the same is occupied for workrooms. Such fire-escapes shall be kept in good repair and free from obstruction.

Every room above the second story in factories or workshops in which five or more operatives are employed shall be provided with more than one way of egress by stairways on the inside or outside of the building; and such stairways shall be, as nearly as may be practicable, at opposite ends of the room. Stairways on the outside of the building shall have suitable railed landings at each story above the first, and shall connect with each story of the building by doors or windows opening outwardly; and such doors, windows, and landings shall be kept at all times clear of obstruction. All main doors, both inside and outside, must open outwardly, and each story must be amply supplied with means for extinguishing fires.

Every building three or more stories in height, in whole or in part used for a tenement for more than four families or a lodging-house, shall be provided with a sufficient means of escape in case of fire. No explosive or

inflammable compound shall be used in any factory in such place or manner as to obstruct or render hazardous the egress of operatives in case of fire.

Persons violating these provisions as to buildings are liable to a fine of not less than $50 nor more than $100. Females employed in manufacturing establishments must be provided with seats and be permitted to use them when not engaged in the duties for which they are employed. This also applies to stores.

For the enforcement of all these provisions the governor appoints two or more members of the district police (a state force) to act as inspectors of factories and public buildings. They may enter all buildings used for public or manufacturing purposes, examine methods of protection from accident, means of escape from fire, and make investigations as to the employment of women and children. Fire-escapes, etc., are to be constructed under the approval of one of the inspectors. (See chaps. 48, 74, 103, 104, Public Statutes; and 150, 208, 266, acts of 1882.)

RHODE ISLAND.—No child under twelve years of age can be employed in any manufacturing establishment; no child under fifteen, unless he has attended school at least three months the preceding year; and no such child shall be employed for more than nine months in any year. No child between twelve and fifteen years of age shall be employed in any factory more than eleven hours in any day, nor before 5 o'clock in the morning, nor after half-past 7 in the evening. The violation of these provisions is punished by fine of $20.

Ten hours' work in any one day constitutes a legal day's work, unless otherwise agreed by the parties to the contract for same. Town and city councils may pass ordinances requiring fire-escapes on factories in which workmen are employed above the second story. (See General Statutes, chap. 38.)

CONNECTICUT.—No child under fourteen shall be employed in any business, unless such child shall have attended some day-school for sixty days during preceding year, six weeks of such attendance to be consecutive. It is the duty of "school visitors" in every town once or more in each year to examine into the situation of children employed in manufacturing establishments, to see if provisions of law are complied with. Parents and guardians must send children to school the legal time; violation punishable by fine of $5 for each week's neglect. Employer of child under fourteen must have a certificate of child's attendance at school according to law. No child under fifteen to be employed in factories more than ten hours per day or fifty-eight hours per week, under a penalty of $50.

Each story above the second story of factories and workshops must be provided with more than one flight of stairs inside, or outside fire-escapes, satisfactory to selectmen or fire marshal of town.

Eight hours constitute a legal day's work, unless otherwise agreed upon. (See General Statutes, title 14, chap. 6; chap. 37, acts of 1880; chap. 80, acts of 1882.)

NEW YORK.—Children under fourteen are not to be employed during school hours unless they have attended school at least fourteen weeks during year preceding; the employer to have certificate of such school attendance. Eight hours constitute a legal day's work, except for farm and domestic labor. Overwork for extra compensation is permitted. (See chap. 385, laws of 1870; chap. 421, of 1874, and chap. 372, of 1876.)

NEW JERSEY.—No child under ten years of age shall be admitted to work in any factory; and no minor shall be holden or required to work more than ten hours on any day or sixty hours in any week; penalty for violation of latter provision is $50. Ten hours per day constitute a legal day's work in all cotton, woolen, silk, paper, glass, and flax factories, and in manufactories of iron and brass. (See acts of 1851, chaps. 17 and 18.)

PENNSYLVANIA.—Eight hours constitute a legal day's work, in absence of special contract, except for farm labor and labor by the year, month, or week. Ten hours constitute a legal day's work in cotton, woolen, silk, paper, bagging, and flax factories. No minor under thirteen shall be employed in any such factory under penalty of $50. No child between thirteen and sixteen years of age shall be employed more than nine months in any one year who shall not have attended school at least three consecutive months in the same year. No minor shall by any contract be employed in any of said factories for more than sixty hours per week, or an average of ten hours per day. Penalty for violation of this provision not to exceed $50. Factories in which employés are at work in third or higher story must have permanent external fire-escapes, satisfactory to fire commissioners and fire marshal of district. (See acts of 1849, 1868, 1879.)

MARYLAND.—The law prohibits the employment of children under sixteen years of age in factories for more than ten hours per day under penalty not exceeding $50.

OHIO.—No child under fourteen shall be employed in mills or mines during school hours unless he has received at least twelve weeks' schooling during the year preceding, and employers must have certificate to that effect; two weeks' attendance at a half-time or night school to be considered equivalent to one week at a day school. Whoever compels a woman, or a child under eighteen, or permits a child under fourteen to labor in a mechanical or manufacturing business more than ten hours per day shall be fined not less than $5 nor more than $50. (See Revised Statutes, sections 4023, 4024, 4029, 6986.)

THE HOMES OF FACTORY OPERATIVES.

The institution of the factory system changed the workshop-home of the domestic system to the home proper by transferring work to the factory. This change, as I have said in another part of this report, had its advantages and its disadvantages, but on the whole the advantages predominated. Whatever there was that was good in the old household plan of industry, so far as keeping the family together at all times and working under the care of the head, was, if the head was good, temporarily lost when the factory system took its place, in so far as the old workers entered the factory. It is also true that under the domestic system the head of the family, or the young man desiring to become such, had a motive to urge him to own the tools with which to work, but this motive actuated but few; the many were not moved by it. Now, while the few are deprived of such incentives, the many are furnished with elaborate tools with which to labor, and the homes are left free to be used as homes; so that the homes of the operatives under the new system have undergone a great change, and are still undergoing changes which are making the English significance of the word "home" a reality to the poorest.

It is perfectly true that in every large factory town one can find loathsome dwellings occupied by groups of loathsome persons called families. In the most enlightened factory towns, both in America and in Europe, it is easy to find dwellings occupied by factory operatives which are a disgrace, not only to the parties owning them, but to the municipality which permits them to exist or to be inhabited by human beings. It is true, too, that there are some families whose members are factory operatives who will not keep the best of tenements in decent order, and who, in spite of boards of health and of owners, persist in treating a house as if it were meant for swine.

All these things exist, and may be seen by any one who cares to take the pains to visit large factory towns. Yet, taking the operative population of such towns as a class, they are very comfortably housed, and about as well housed in one country as in another. The personal inspection of more than a thousand homes of factory operatives leads me to this conclusion. Perhaps a brief account of homes in different localities will best illustrate this chapter.

In Bradford, in Yorkshire, England, the seat of the woolen trade, a man earning $7 per week, having a wife and one child, occupies a good house with three rooms, for which he pays $1 25 per week; the house is comfortable, carpeted, and well furnished, with some mahogany furniture; meat is used once a day, and all the meals are ample and of fair quality. Another family, the husband a warp dresser, the wife a weaver, two children, occupy a house, consisting of living room and two bedrooms, for rent of $1 36 per week, including gas. This family has a piano, good haircloth furniture, vases, pictures, and books; a good medium home, with a jolly English wife and a sober, industrious English husband; the husband on full time could earn 30*s.* per week, the wife 10*s.*, and one of the little girls, as doffer, 2*s.* Among scores of these homes, taken at random, I found a few where the family earned as much as the others, but lived in two rooms usually, and these constituting a dark, smoky, and odorous den, for which 72 cents per week was paid as rent and very little was spent for bread, the bulk of all earnings going for beer and spirits. Such places in Bradford are rare, for the town is a model town, certainly so far as its neat, individual cottages are concerned.

I will remark here, what is true of all British factory houses, that, being floored with stone as a rule, if not carpeted, they present a cold and cheerless look to one not accustomed to them; and these stone floors are often quoted in this country to the disparagement of the English house. Homes of much higher grade are floored with stone or brick, being much cheaper than wood. The dimensions of the British house are much smaller than factory houses in America. The tenements of three rooms have much less space than tenements of the like number of rooms here. This is generally true of all European factory towns. But the houses of the operatives are as a rule separate houses, the tenement house being quite unknown, except where what is termed the "model workingmen's houses" are being tried. The boarding-house is not an institution for factory operatives.

At Saltaire, near Bradford, the homes of the work-people are very excellent, rents being from $30 to $100 per year for three- to five-room houses. The results of good treatment are easily discernible in this village. The facilities furnished for intellectual improvement rival those of any factory town in the world; and while the expenditures of Sir Titus Salt were made on such a lavish scale as to render his investments unprofitable, yet the principle incorporated in his work has told wonderfully upon the character of the people employed in Saltaire, and in no way is this more apparent than in the neat, tidy, and prettily furnished and adorned homes of the poorest paid operative in the works. These statements are true of the village of Queensbury, where John Foster & Son have works considered as the rival of Saltaire. The weavers at Queensbury earn from 15*s.* to 18*s.* per week on full time, and rents are 3*s.* 6*d.*, or 84 cents, per week for three rooms. The operatives are healthy, and offer the best evidence of the results of the moral tone with which the firm tries to impress all connected with the work.

Some of the best houses in England are to be found at Copley Village, in Halifax, built by James Akroyd & Sons. These houses, which are shown in the plates, are very excellent. They rent, three rooms, for £10 per year, and the operatives are helped to acquire a freehold. The Akroyds believe in raising the moral condition of the people, and their efforts have met with success. They would not work under any other rule than that which recognizes the power of moral forces.

The Crossleys at Halifax have taken the same path. They employ 5,000 people, and take every pains to have them progress in all that makes good men and women. At Ashton-under-Lyne, in one of the worst streets of the town, I found a home of the old type, where a girl of fourteen was in charge of two babies; the mother dead, the father and sister at work in the factory; the family living in a house of four rooms, two above and two below, rent at 84 cents per week, the house poorly furnished and everything in bad condition; but few such places can be found in the town. Here Hugh Mason, esq., M. P., has brought the factory people as a rule up to the line of self-respect. The difference in the homes of those whose employers take an interest in the people and of those whose employers do not is very marked indeed. Rents run from 84 cents to $1 12 per week, according to rooms, for ordinary houses, and the spinners (mule) earn from 35*s.* to 40*s.* per week.

The homes of Salford and Manchester do not equal those of the other places named, although they are very much improved as regards their condition a quarter of a century ago. The poorest houses rent for 84 cents per week, many of them, with four rooms, for $1 08. In Oldham a good house of four rooms rents for 96 cents per week.

Blackburn, which has seen so much turmoil in the past, is passing out of its old condition, and the good results of factory inspection are to be seen. The dwellings of the operatives are of a lower grade than usual in Lancashire; rents are about the same, the poorest houses of three rooms renting for 96 cents per week, while some are as low as 68 cents, including water rates; but many of them are barren-looking houses inside, with but few of those adornments which accompany better moral and intellectual conditions. The houses of the English operative, as a rule, present a wide contrast to those occupied by their insular neighbors. This is true of the factory towns of England generally. At Bolton the houses are excellent, one of four rooms good, but of the lower grades, renting for 84 cents per week. These are usually well supplied with good furniture, pictures, and books. Bolton is the great center for fine cotton-spinning. The model establishment of Messrs. Tootal, Broadhurst & Lee has had a most excellent influence in the town, and shows what can be accomplished when the management recognizes the better operative as the result of a better moral condition. The wages of spinners in Bolton range from 15*s.* to 20*s.* per week.

The factories at Paisley are excellent evidences of the good influence which comes from proper interest in employés. The works of the Messrs. Clark and of the Messrs. Coates are moral establishments, and the influence of model works extends to the homes of the people employed, which are here very comfortable. Rents vary from 72 cents to $2 per week, according to number of rooms.

In Glasgow no cellarages can now be found, and the factory city, which only a few years ago saw more drunkenness, comparatively, than any other, has greatly changed. Wide streets have been cut through the worst quarters, and the dwellers have been driven to the suburbs, where they have changed their cramped city abodes for clean and light homes. This process is constantly going on in Glasgow, and the factory operatives are reaping the benefit of the attempts to purify the town. Belfast, Ireland, a beautiful and prosperous town, is doing much to improve the dwellings of the linen-factory operatives. The cleanliness of the factories has an influence upon all connected with them, and this influence is far-reaching. The houses of the operatives in Belfast are very tidy, the windows, as a rule, being adorned with flowers in summer. Rents are from 48 to 60 cents per week for four rooms. There are houses with flats in Belfast. In the west and east of Scotland the operatives live very largely in flats; rents in Dundee and Dunfermline being, for two rooms, from $15 to $30 per year, and for three or four rooms from $30 to $50 per year.

Upon the continent the observer is happily disappointed, for he finds much better housing for the factory operatives than he could have reasonably expected. The flat prevails to a great extent. At Verviers, in Belgium, the men get from 3 to 4 francs per day wages and the women from 1 franc 75 centimes to 3 francs per day, and pay for rent for four rooms and small garden about $60 per year; for two rooms on second floor, $1 80 per month; for two rooms on third floor, 90 cents per month. These tenements, although small, are comfortable, fairly well furnished, and are adorned with lace curtains, window-gardens, etc. As a rule, the dwellings are very good, but the cottages are much better in every respect than the flat tenements. Many of the houses, with four rooms, cellar, and scullery, rent for $3 per month. This class of houses is very excellent, having separate hallways and being well and neatly furnished.

Among the most substantial houses for workingmen will be found those of Herr Krupp, at Essen, in Rhenish Prussia. These houses compare well with the men employed in the celebrated steel-works at this place. Herr Krupp by his system of employment has the selection of the best mechanics in Europe. This system comprehends all the advantages to be found in model industrial establishments, including excellent tenements and gardens at low rents. A foreman, a gun-maker, earning $45 per month, secures four rooms, a drying-place on the roof, a cellar and a garden for $45 per year. A workman with wages at 75 cents per day pays $37 per year for three large rooms, drying-place, cellar, and garden. These are fair tenements, in two- or three-story blocks, situated in colonies just outside the town. For $100 per year one can obtain a most excellent tenement of seven large rooms, cellar, garden, etc. All the houses in the colonies are owned by Herr Krupp; in fact, he believes that he secures better results by owning everything, and by being able thereby to control the sanitary surroundings of the dwellings of his people. These colonies, each having its name, are laid out with parks, schools, churches, supply stores, etc. Here the

working people use a great deal of black bread, but this bread is very sweet and nutritious, and is often found on the tables of those above the operative class, the same as our graham bread is found upon the tables of the rich.

The housing of single men at Essen is on the barrack plan, and is far below the American corporation boarding-house style of housing our single operatives. In the hosiery town of Chemnitz, in Saxony, where men earn in the factories from $2 50 to $5 per week and the women from $1 50 to $2 50 per week, working twelve hours per day, very fair flats of three rooms and a drying-place can be secured on second or third floors for $36 per year. These flats are in high buildings in the center of the town, and, looking at the outside and observing the curtained and gardened windows, a stranger would not take them for the abodes of the factory operatives; but the appearance of the operatives in the mills does not harmonize with the appearance of their dwellings, which are very excellent.

Mulhouse, in Alsace, has had the benefits to be derived from the efforts of active industrial societies, and the dwellings here, which are separate, show the care of the employers. The usual plan of the Mulhouse cottage is to erect four separate houses under one roof, upon a square, each fourth of the square constituting one dwelling. This is illustrated by the plates. The houses have gardens attached; and rents are low, as will be seen from the description of the plates. The Alsatian factory operatives constitute a class by themselves in many respects. They are very neat, the females wearing pretty dresses and having their hair nicely done up, and when they leave the mills they put on a tidy sack, while the men put on a coat, that they may look well upon the street. Bread and vegetables are the chief articles of food, meat not being used so much as in England.

Rouen and Amiens, France, are perhaps typical factory towns, though in all respects not model ones. In the former place the operatives live in all sections of the town, many in what is known as the "poor quarter", and it is well named. This locality contains the oldest houses in Rouen, and they are very poor indeed. By far the greater proportion of the operatives live in quite comfortable houses, some flats, some cottages, but there is not much attempt to improve them. The factories, in fact, are not as clean and tidy, free from dust, and well ventilated, as are those at Amiens, where the houses and the factories are very good; in fact, the poorest dwellings in Amiens are as good as the better ones in Rouen. The operatives of Amiens use good food, and their tables at tea time presented, with white bread and neat table furniture, an inviting appearance. The window-gardening of the operatives' houses adds much to their attractiveness, and gives a thrifty appearance to the humblest home.

In this brief notice of the homes of operatives I have intended to call attention to types only. It should be stated that the houses in Great Britain and on the continent are of stone or brick, as the locality may afford, and the neat wood cottage of America cannot be found.

The operatives constitute a study in themselves. They differ in appearance as much as in nationality. In the British factory they wear woolen clothes, and do not change them as they go upon the streets; but of a Saturday afternoon or evening they are found well dressed and usually well behaved. In the factories their woolen clothes give them an untidy appearance. In Belgium and Germany the blue linen blouse prevails; it looks clean, and is so, but it constitutes the street as well as the factory dress for the men, while the women wear loose, untidy clothes. In France, as stated, the female operatives take pride in their dress and hair, and in the mills they look as bright and as comely as do the bonny operatives in the thread-mills at Paisley, Scotland, perhaps the finest body of operatives in the world.

It is quite impossible to compare the homes of European factory operatives with those of the same class in America. The great mass of the former are, generally speaking, quite as well housed as the latter, so far as the quality of house is concerned; but, so far as quantity of room and excellence of living are concerned, the advantage is with the operatives of America. The European has, as a rule, the advantage of lower rents. It is also difficult to make a comparison, because systems differ. In American factory towns the corporation boarding-house was a necessity when the factory was assured, because the employés were largely single people from the farming towns. These boarding-houses offered and continue to offer good rooms and good and ample food. I had the pleasure a few years ago of taking a British manufacturer into one of these boarding-houses at dinner time, and he was extravagant in his praise of the table. It would be impossible to find in an operative's home in Europe a table half as well spread as that of a corporation boarding-house in New England.

The boarding-house led to the corporation tenement-house for families, and this, too, is quite unknown in Europe; it is oftener met with on the continent, where the higher classes take to flats, than in Great Britain; but it cannot be compared to the small, compact, individual houses of the British operatives.

In Europe, too, the operatives have been of one nationality, generation succeeding generation. The English operative's home is the type of the English workingman's order of being; so with the home of the French, the German, and the Belgian operatives respectively. In America we have not kept the operatives of one nationality long enough to develop a type. And yet when the operative of this country steps out of the boarding- or the tenement-house he steps into an individual home the equal of which cannot be found in the factory towns of the Old World. The plates presented with this chapter clearly illustrate this fact. The cottage of the American factory operative, when he sees fit to occupy one, is superior to the cottage of the workingman of any other country. It is most gratifying to know that the individual homes are not only increasing in number very rapidly in this country, but that they are increasing in influence. In Lowell, Lawrence, Fall River, Pawtucket, Cohoes, and in fact in all

the leading factory towns, this is the course of progress. And the more rapidly the increase takes place the more rapidly will the filthy, crowded places called homes, which some of our operatives insist upon inhabiting, disappear.

In this country the individual house usually has a few thousand feet of land about it, and the operative is stimulated by the prospect of proprietorship to save his money and become the owner of the estate. Our land laws offer no obstacle, and when the corporation gives encouragement the success of the operative in becoming the owner is easily assured. If he will let beer alone and he and his family live cleanly, the operative can thrive; if he says he cannot, let him see that others can, and learn that the fault is his own, when his employer is willing to encourage by easy terms his way to ownership. In too many instances no inducements are offered by the corporation for the operatives to better their condition in these respects. In such cases there is excellent opportunity for building societies, as at Mulhouse, Halifax (England), Philadelphia, and many other places. There never was a time in the United States when so much was being done to house the operatives as at present, and it is to aid this work everywhere that I have dwelt to such length upon the homes of the operatives and given so many details of such homes in other lands. That the model dwellings of different countries may be studied and compared, I have had a series of plates prepared, which truthfully and accurately represent the best houses occupied by operatives in England, Belgium, Germany, France, and the United States. With two exceptions I have examined the houses represented, and can testify to the faithfulness with which the plans have been drawn.

PLATE I. *Operatives' houses built by James Akroyd & Son, at Akroydon, near Halifax, England.*—The plate shows a block of ten houses, each independent as to entrances, yard accommodations, etc. The houses are built of rubble masonry, and the yards contain water-closets and receptacles for rubbish. Two arrangements of tenements are contained in this block, as will be seen from the plan. The minimum accommodation afforded is three rooms per tenement, including the chambers on the second floor. The plate also shows plans of operatives' cottages at Copley Village, near Halifax, England.

PLATE II. *Workingmen's houses of M. Menier, at Noisiel, Seine-et-Marne, France.*—The cost of a house is $855 60. The houses are not sold. The walls are of brick, with apparent joints. The roof-covering is of tiles. The chimney necks or caps are of brick, and are covered with a piece of earthenware, which receives the chimney-pots. The fences on the streets are 5 feet 2 inches high. They are composed of a little brick wall, 4⅛ inches thick and 2 feet 7 inches high, supporting a trellis of the same height. Each water-closet has its cask refilled, when there is need for it, at the cost of the works. Each house is inhabited by a single family. The garden is used for raising vegetables. The cellars are ventilated by tubes placed in the middle or partition walls. The water from the kitchen runs into dirt-holes or heaps in the rear of the houses. There is no sewer in the middle of the street. The streets are shaded by trees placed on the sidewalk. The houses are perfectly ventilated. Water is obtained at the water-posts.

PLATE III. *Workingmen's houses at Verviers, Belgium.*—The selling-price of a house is $744, payable part down and the rest annually. The roofs are covered with Holland tiles. The gutters are of zinc. The window-sills and the stairways are of stone. The society erecting these houses furnishes to workmen a house consisting of four rooms and a kitchen at the price usually charged for the rent of two rooms. The price of the houses has been raised, to prevent speculators from buying them in the name of workingmen, which has been too often done, and also to prevent subletting. The heating is done by stoves. Two chimney-pipes go up in channels in one of the walls. The floors of the third story are of pine; the interior stairway is of beech. The ceiling or floor above the cellar is plastered. The kitchen is paved with tile or brick. The refuse is employed in the garden. The principal room can serve for a shop or a workshop. Two styles of houses are shown, but this general description applies to both.

PLATE IV. *Workingmen's houses in Mulhouse.*—The cost of a house is $433 65; the price of 192 square yards of land is $29 76; total, $463 41. Price of a group of four, built in 1864, $1,734 63. The yearly rent is $34 88. The tenant becomes owner at the end of fifteen years by paying $1 12 more a month. The houses are coated with mortar made of hydraulic stone and river sand. The stone is colored white, yellow, or gray. The sills of the windows are of stone, as well as the thresholds of the doors. The lintel-bars are of round iron. The houses are separated by lattices made of oak laths. The framing of the windows is of stone without projections. The area covered by the house is 38.69 square yards. The chimney-shaft is of brick. The roof is covered with tiles. The gutter is of tin, with three coats of paint. A ventilating-pipe runs from the drain to the roof. The stairway is lighted by means of a glazed skylight upon the roof. In Alsace the workingmen generally prefer to have the privies in the garden. The inside of the drains is covered with a coating of cement; the bottom is of concrete. The people generally use the house refuse with the remains of vegetables and straw for their gardens. The partitions of the privies are of wood, and they are covered with tiles. The refuse water of housekeeping runs into the city sewer. Water is furnished by pumps set over well-holes dug 26 feet deep, and disposed along the sidewalks. The 144 square yards of garden supply vegetables, worth, at market prices, $11 16 yearly. The smoke-pipe, of sheet-iron, leaving the stove in the dining-room, connects with a pipe of double-burnt earthenware, to avoid condensation in going through the kitchen.

PLATE V. *Workingmen's houses in Mulhouse.*—The price of a group of houses is $1,971 60. The area covered by a house is 52.76 square yards; the total area covered by a house and garden is 180 square yards. The

monthly rent is $2 60. The lintels and window-sills are of stone. On all the stone lintels there are delivery-pipes. The walls are covered with a speckled rough coating in hydraulic stone and mortar. The rain-water, with that for the kitchen, runs away through paved trenches near the sidewalks until it reaches a sewer. The houses are embanked outside. By paying $3 72 a month, instead of $2 60, the tenant becomes the owner at the end of fifteen years.

PLATE VI. *Workingmen's houses of Mr. Krupp, colony of the Three Linden Trees.*—The price of a group of four houses is $4,185. The price for one house, including the land, is $1,046 25. The annual rent of two rooms with a cellar varies from $20 93 to $25 11 yearly in a house with stories. The rent of a house in this group is from $37 20 to $41 85 a year. The refuse matter is taken by the peasants of the surrounding country, who use it as compost. The roof is covered with tiles. The exterior walls are of rubble stone or ashler; the interior partitions are of wood. The window-sills and the stairways are of stone. In 1876 Mr. Krupp, to accommodate his workmen, constructed 3,277 tenements, which are occupied by 16,700 persons. On account of the rapid development of his works he has been obliged to build houses with stories. They are obliged to give every family a separate entrance. This plate also shows a group of two houses arranged for four families. In this group the annual rent of a tenement composed of four rooms is $41 85. The employés of Mr. Krupp pay their rent once in three months. The rent of the workingmen is regulated by reserves made from their pay, which is carried into effect every fifteen days. The rent of widows is paid by the benefit societies. The inspectors prevent the workingmen from crowding themselves in the tenements. They expel workingmen who live in too small tenements.

PLATE VII.—This illustrates other houses erected by Mr. Krupp at Essen, in which the framework shows upon the outside.

PLATES VIII, IX, X, XI.—The plates represent wooden cottages built by the Willimantic Linen Company at Willimantic, Connecticut. With each cottage there is quite a garden of several thousand feet of land. The rent is from $60 to $125 per year, according to size. These houses are located in such a way as to exhibit variety of styles; that is, two of like architecture are never placed side by side. The company has about 40 of these houses at the present time, occupied by operatives and overseers.

PLATES XII, XIII.—These represent houses of the Ludlow Manufacturing Company, at Ludlow, Massachusetts. They have erected thirty of these, which they sell to overseers and operatives or rent to them when they show a disposition to take good care of the tenements. But in the tenement-houses of the corporation recently erected the rooms are fully as large as shown in the cottages, and each tenement has a separate front and rear entrance and a cellar. The cottages shown on the plates have from one-quarter to one-half an acre of land each, and they rent as follows: Cottages shown as Fig. 1 of each plate rent for $8 per month; those shown as Figs. 2 and 3 of Plate XII and Fig. 3 of Plate XIII, at $7 per month; that shown as Fig. 2 of Plate XIII, at $6 per month. In case these cottages are rented to parties not operatives the rents are higher.

Very many more cottages might be shown, which have been built by concerns whose managers feel that they owe something beside wages to the labor which they congregate in the factory. The efforts to secure good homes for their operatives made by the Cheney Brothers, at South Manchester, Connecticut; the Fairbanks Company, at Saint Johnsbury, Vermont; the Hazards, at Peace Dale, Rhode Island, and by hundreds of firms and establishments might be described; but the instances given and the plans shown will illustrate the spirit which is finding emphatic expression all over our country wherever the factory system prevails and men have seen the necessity of improving the generation which will soon occupy our factories and workshops. If the typical houses shown are reproduced by building societies and manufacturing corporations the very best results will follow.

THE FUTURE OF THE FACTORY SYSTEM.

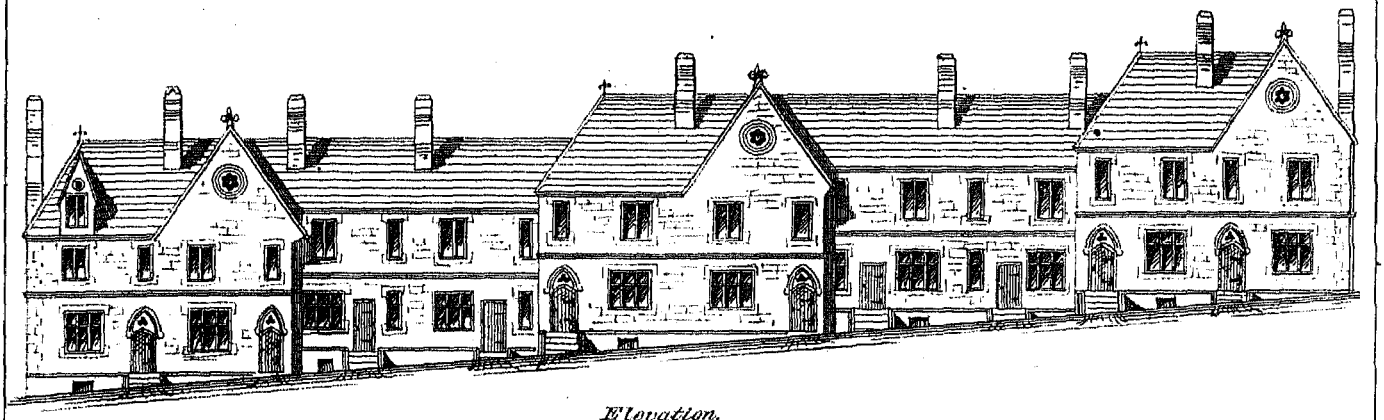
Whether the factory system can be made the ideal system of industry depends upon the men in charge of great industrial enterprises. Whether it can be made the ideal system or not, it will remain, for the large system of production cannot fall back to the small method. Industrial copartnership, or co-operation even, must find a foothold with the factory system, not without it.

The fact that the factory has stimulated the growth of such magnificent model industrial establishments as the Familistère at Guise or the printing works at Tours, France, is sufficient to convince one not too sordidly disposed that the factory is capable of producing the very highest results in raising the lowly. When we consider what the first century of the system has accomplished—and really its work has been done in half a century—we may well speculate as to the future of so powerful an element in our social and industrial conditions.

It is obvious, from all the facts presented, that the factory system has not affected society so badly as has been generally believed; and if in its introduction it has brought evils to light, it has at the same time not only sought to remove them, but has done much to remove others. The unheard-of power it has given labor, the wealth that has sprung from it, are not the sole property of any class or body of men. They constitute a kind of common fund, which, though unequally divided, "as are all the gifts of nature to finite understandings," ought "at least to satisfy the material and many of the moral wants of society". (*a*) The weal or the woe of the operative population

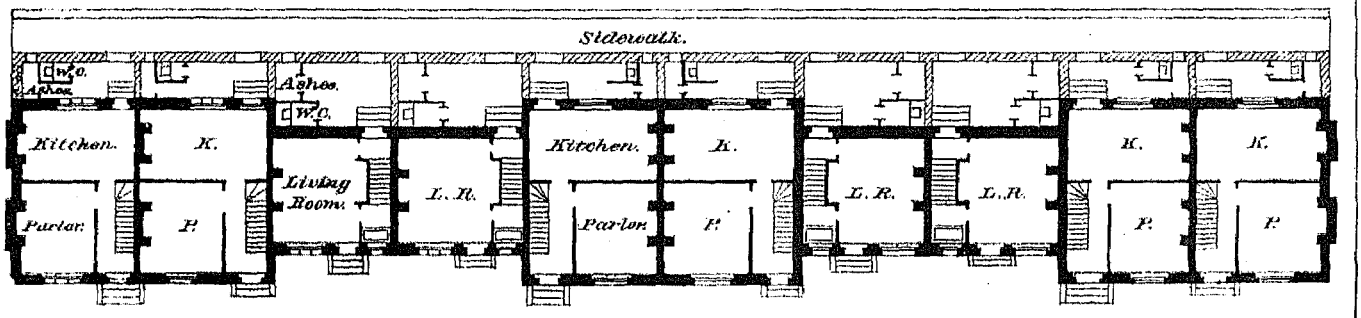
a Reybaud.

PLATE I

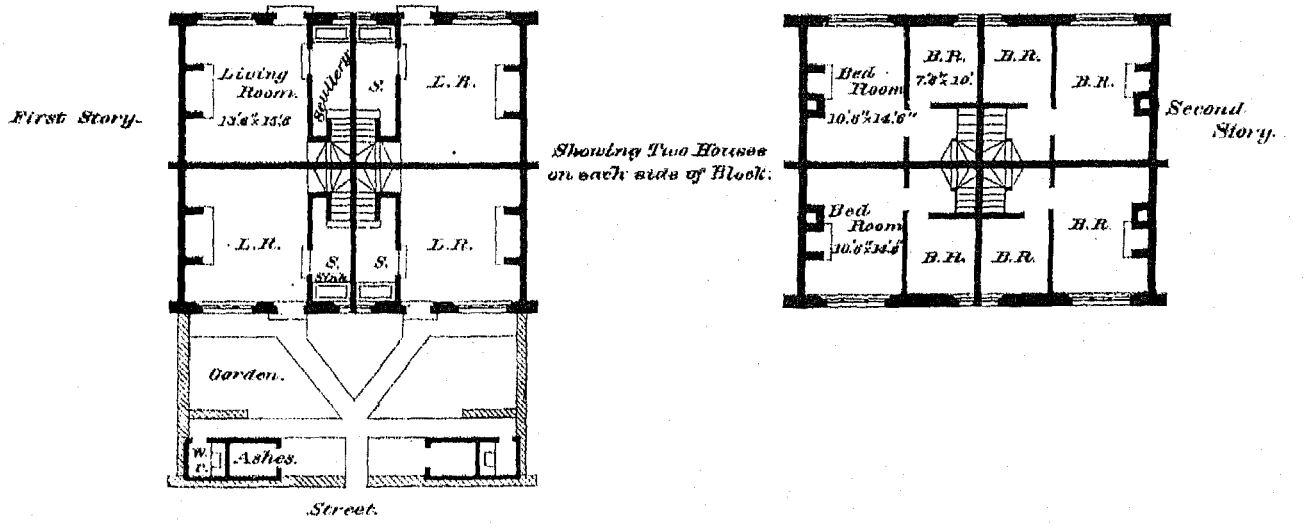


Elevation.

HOUSES AT AKROYDON, NEAR HALIFAX, ENGLAND.

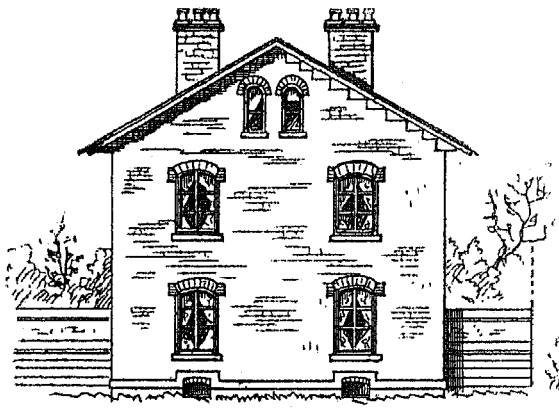


Plan of Ground Floor.

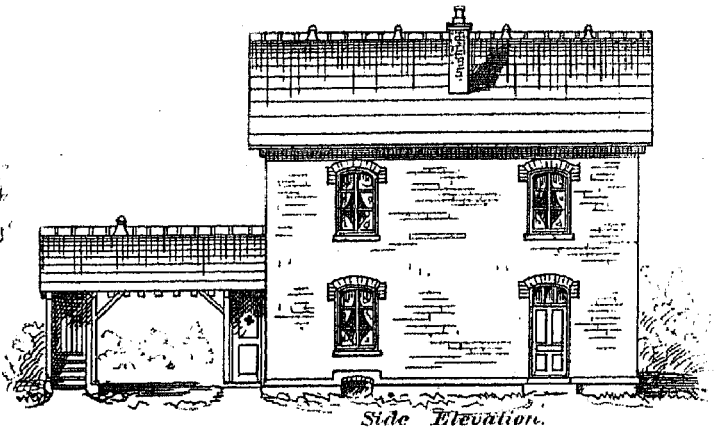


HOUSES AT COPLEY, NEAR HALIFAX. ENGLAND.

PLATE II.

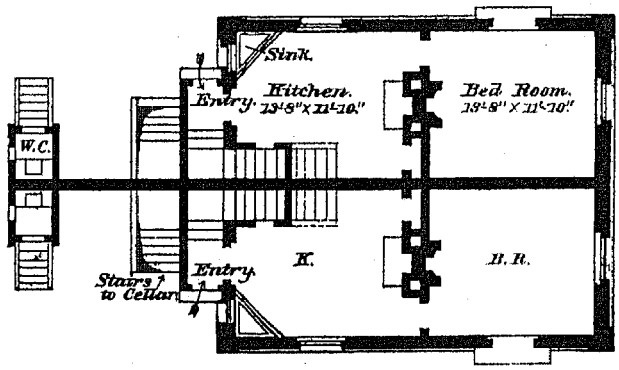


End Elevation.

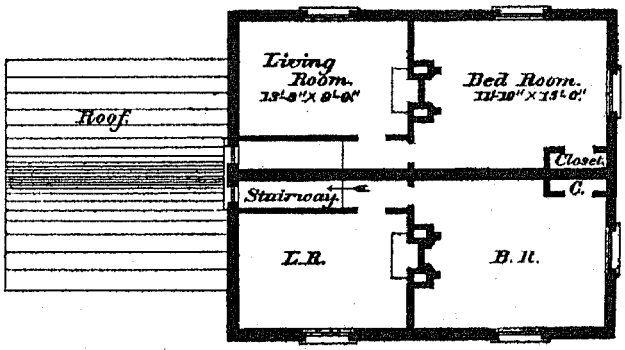


Side Elevation.

Outhouses covered by shed roof.



Plan of First Story.

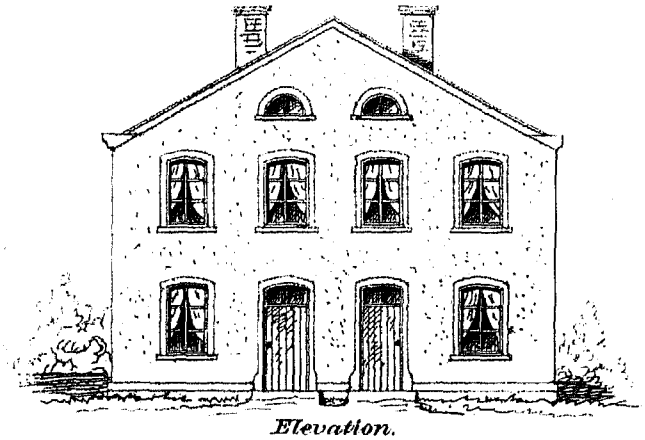


Plan of Second Story.

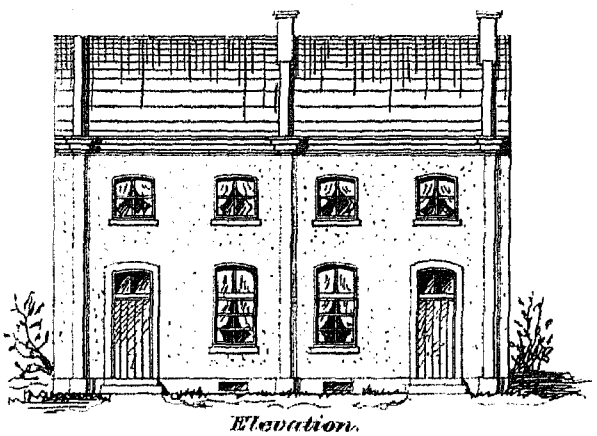
GROUP OF TWO SEMI-DETACHED HOUSES

AT NOISIEL, (Seine-et-Marne), FRANCE.

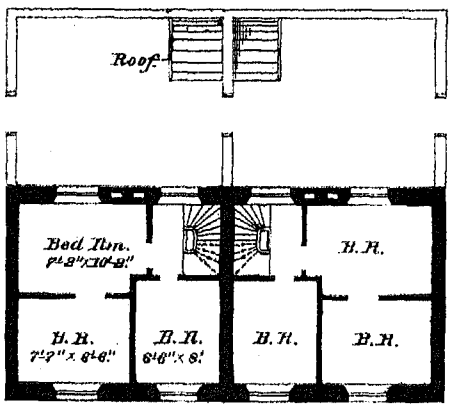
PLATE III.



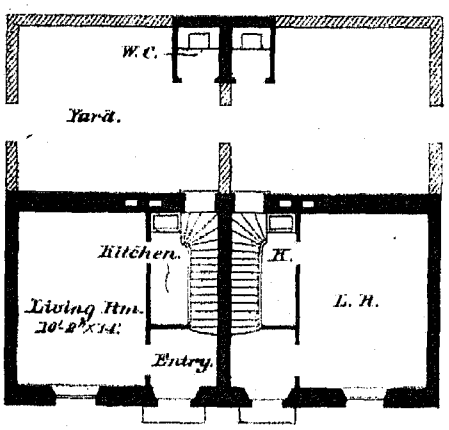
Elevation.



Elevation.

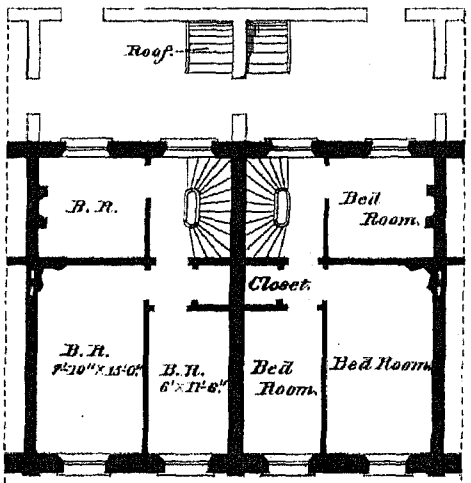


Second Story.

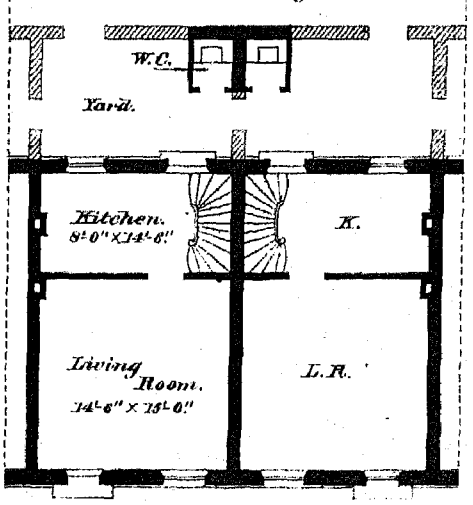


First Story.

Two semi-detached houses.



Second Story.

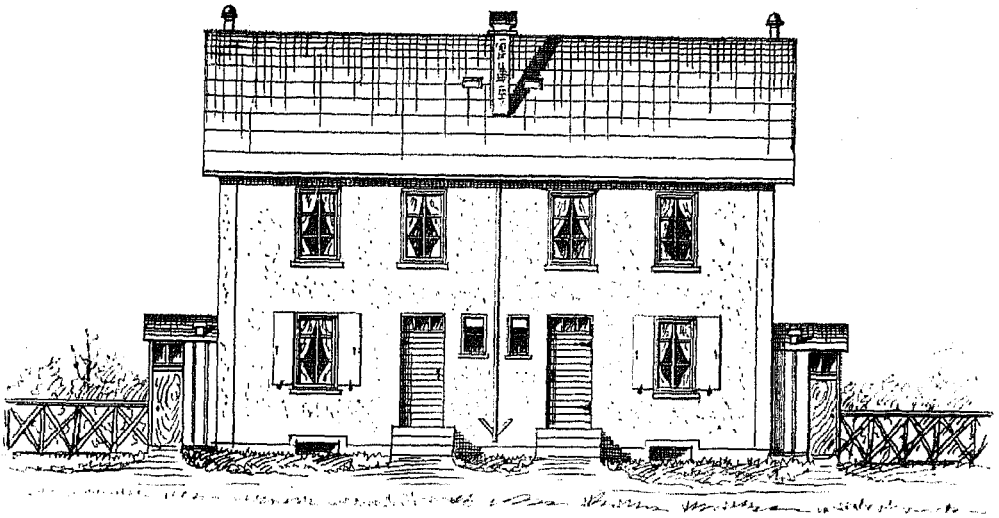


First Story.

Two houses of a group contained in a block.

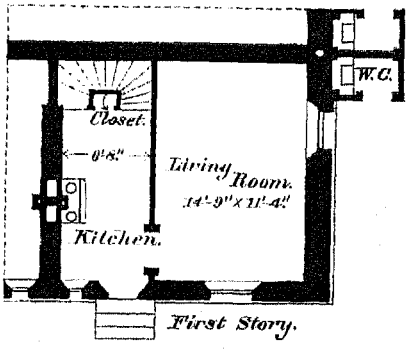
WORKMEN'S HOUSES AT VERVIERS.

PLATE IV.

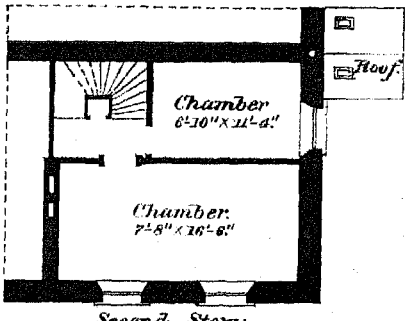


Elevation.

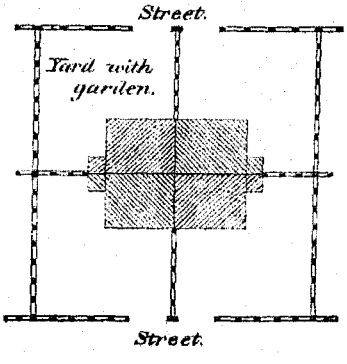
HOUSES AT MULHOUSE.



First Story.



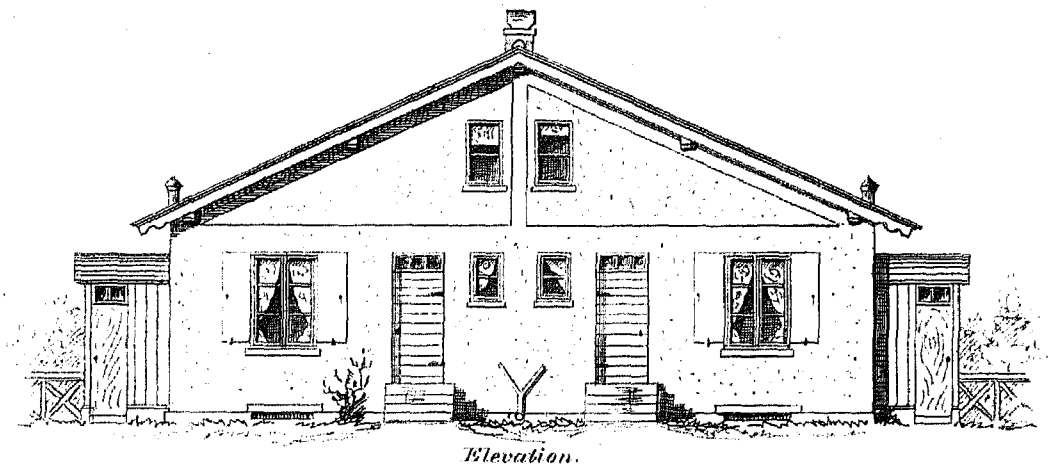
Second Story.



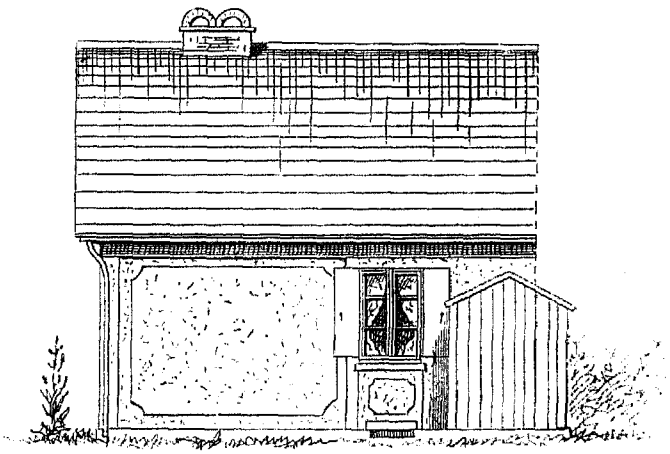
Block plan, showing arrangement of block upon the lot.

Each block contains four houses.

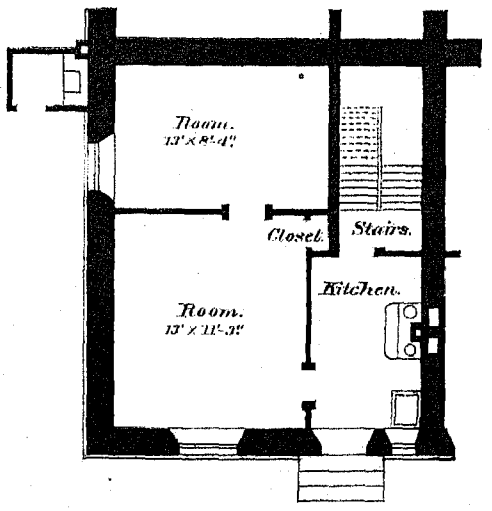
PLATE V.



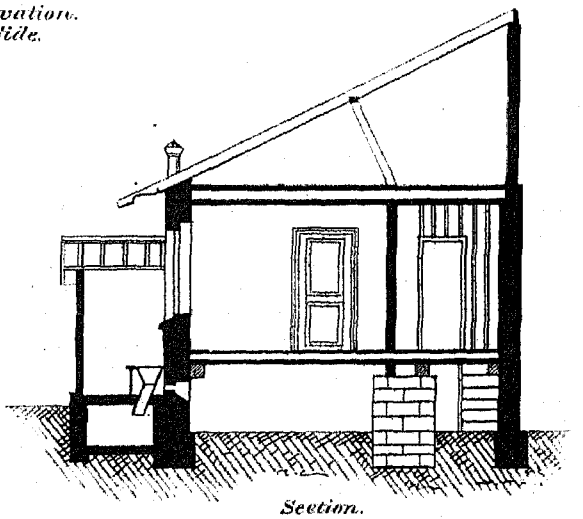
Elevation.
Front.



Elevation.
Side.



Plan.
One-fourth of block.

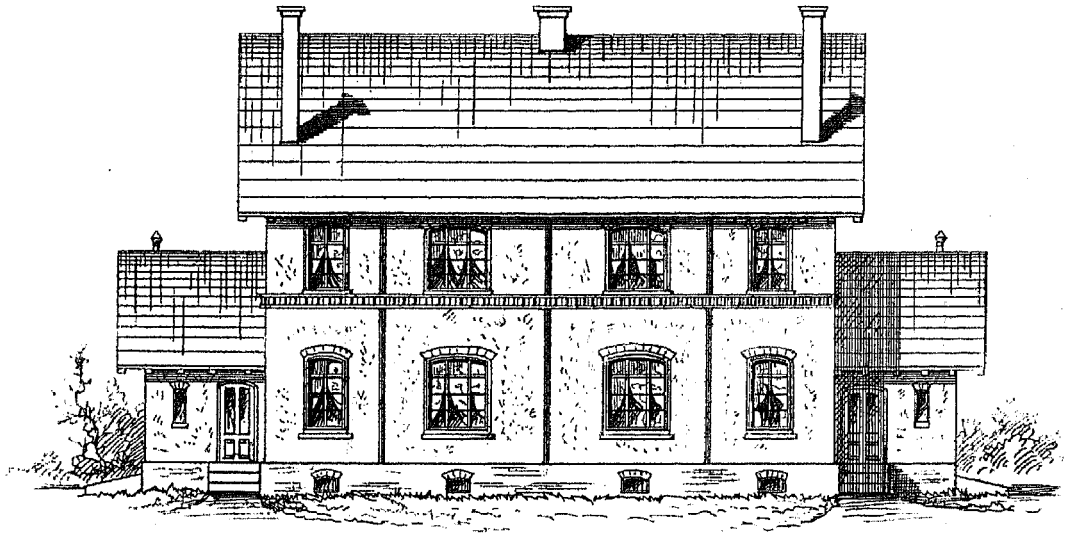


Section.

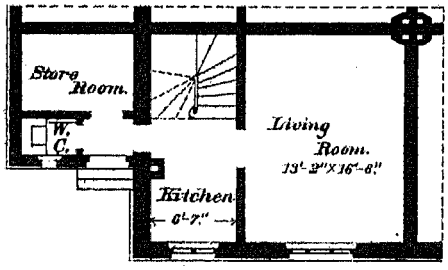
HOUSES AT MULHOUSE.

(Four houses in each block).

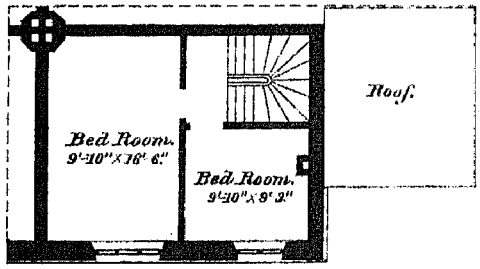
PLATE VI.



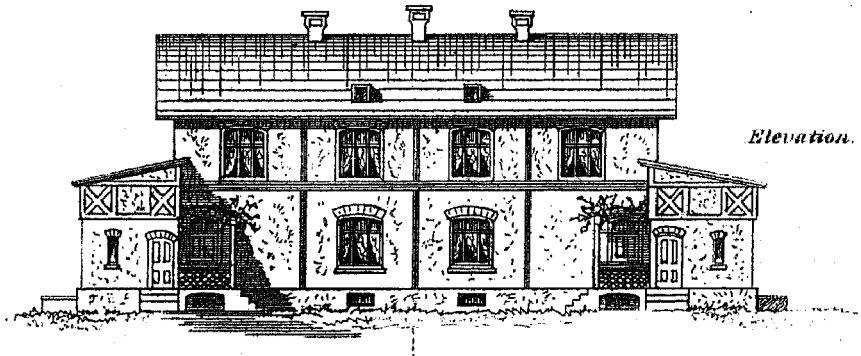
Elevation.



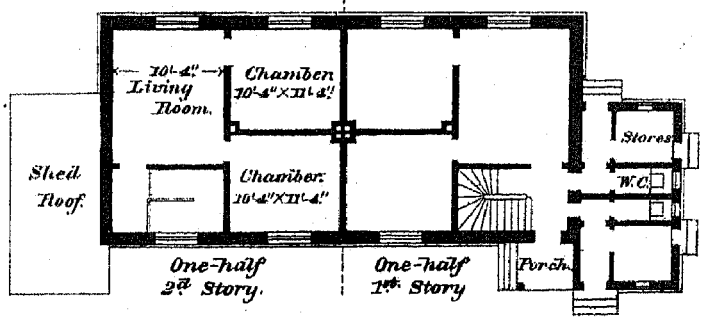
First Story.



Second Story.



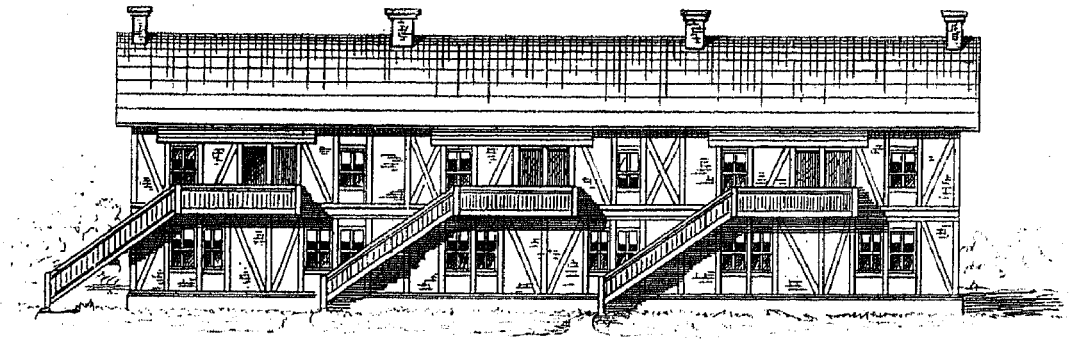
Elevation.



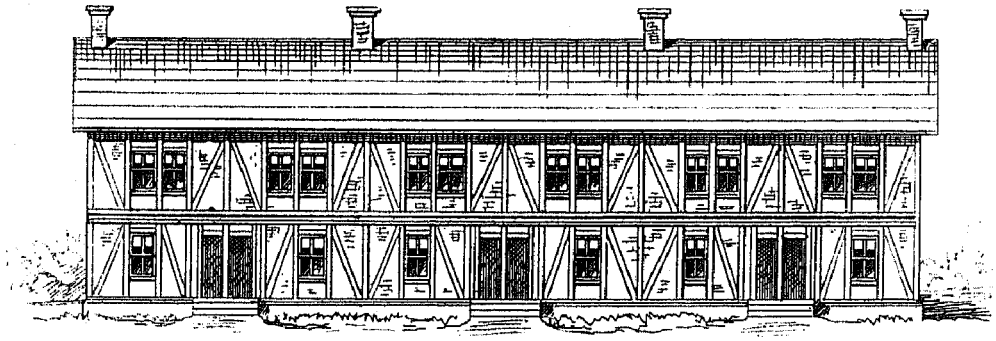
HOUSES AT THE WORKS OF F. KRUPP

(Each tenement forms one-fourth of the block).

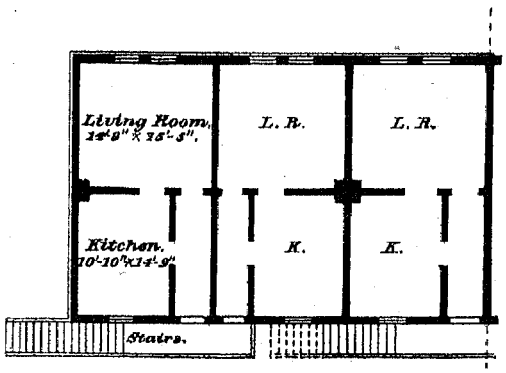
PLATE VII.



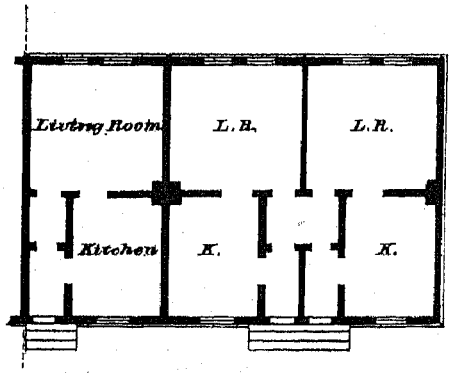
Front Elevation.



Rear Elevation.



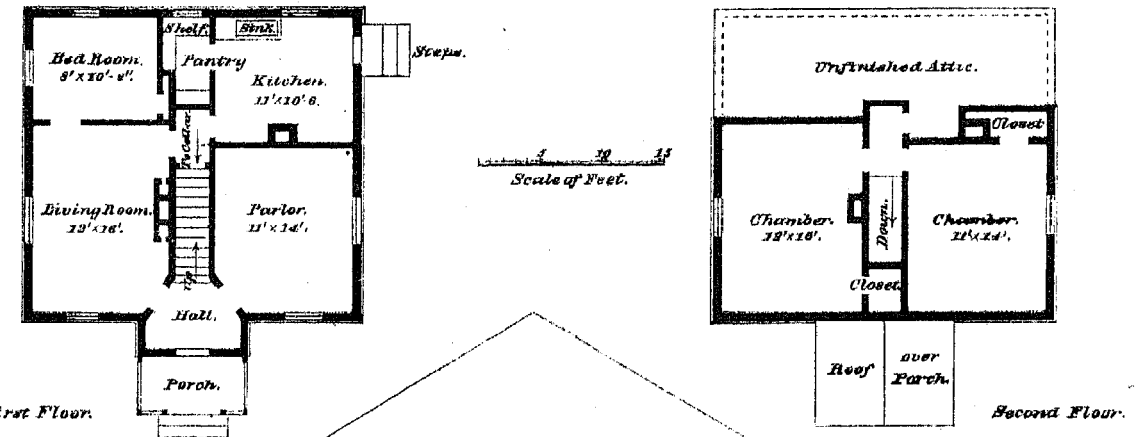
One-half Plan of Second Story.

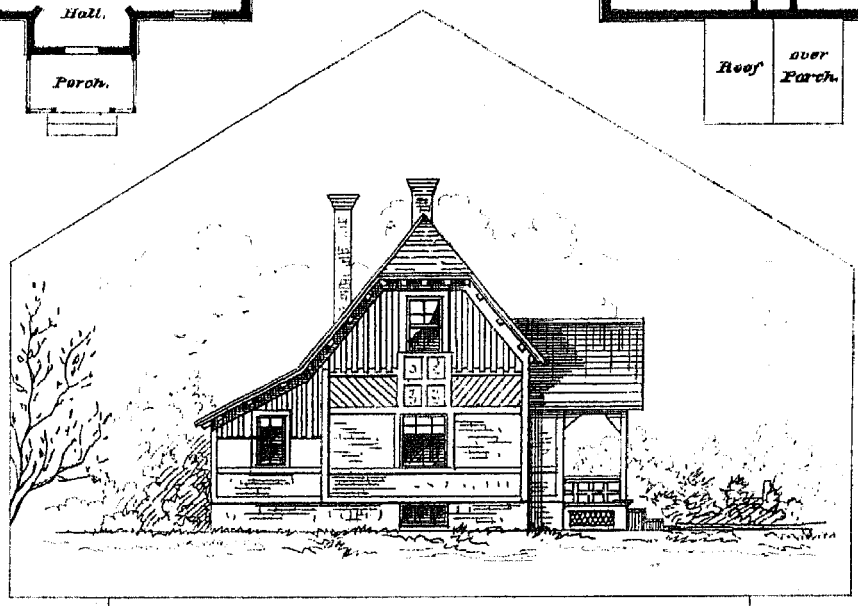


One-half Plan of First Story.

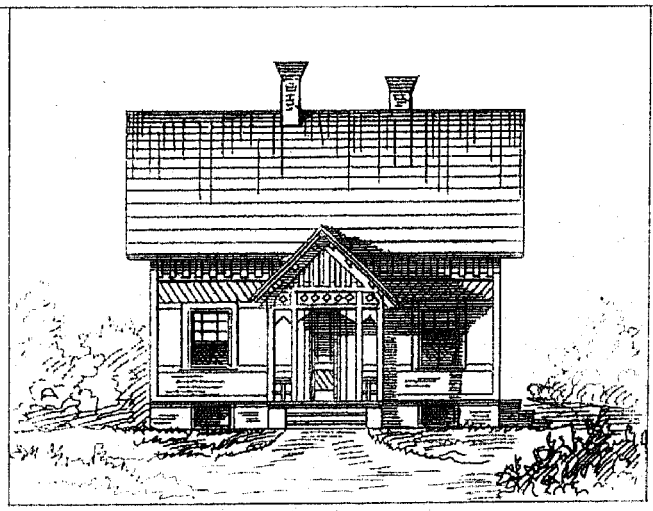
HOUSES AT THE WORKS OF F. KRUPP.

PLATE VIII.





Side Elevation.

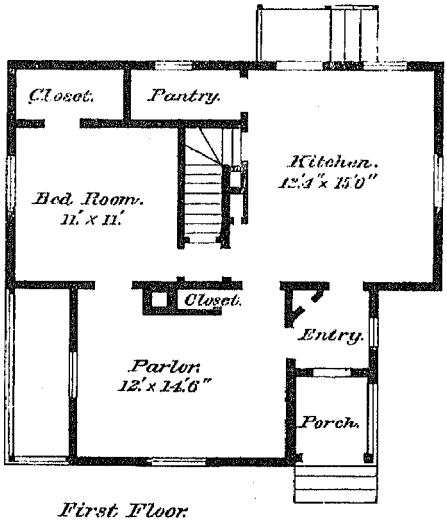


Front Elevation.

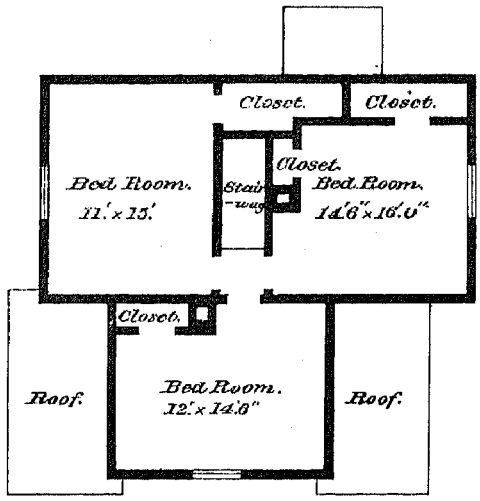
OPERATIVES' HOUSES ERECTED BY THE WILLIMANTIC LINEN COMPANY,

WILLIMANTIC, CONNECTICUT.

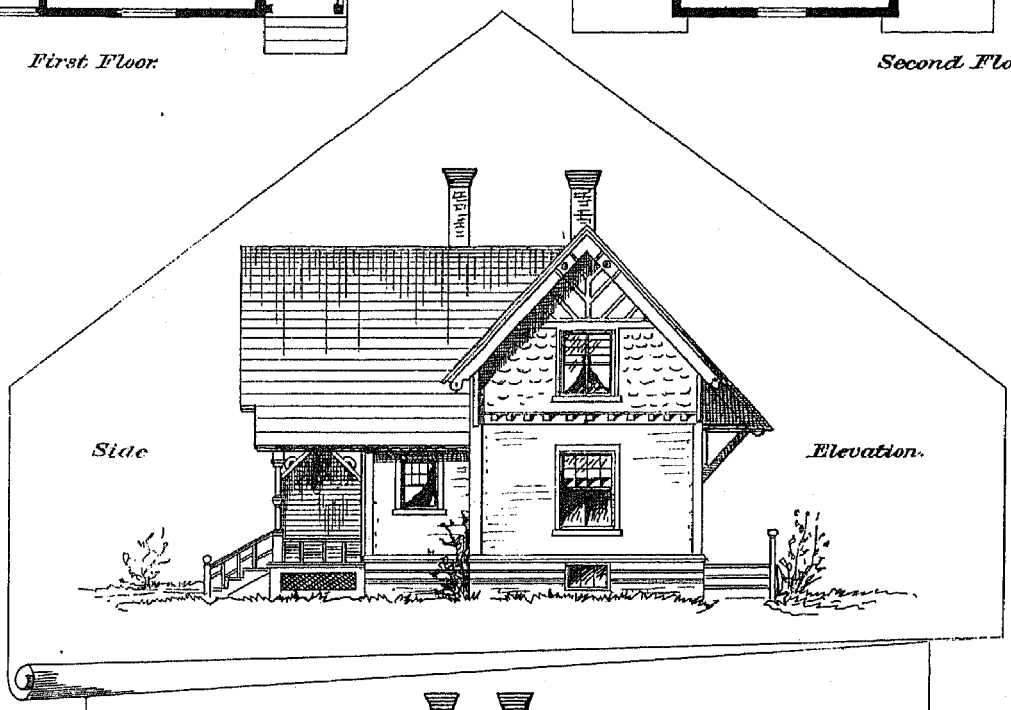
PLATE IX.

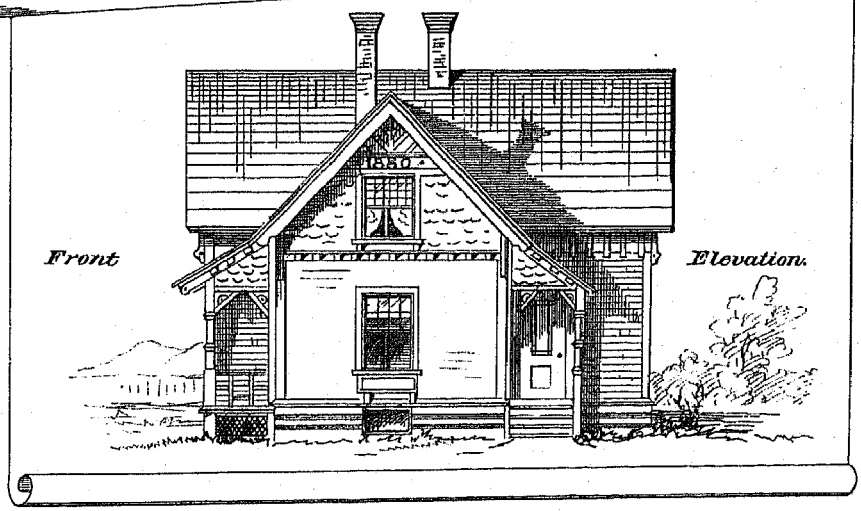


First Floor.



Second Floor.

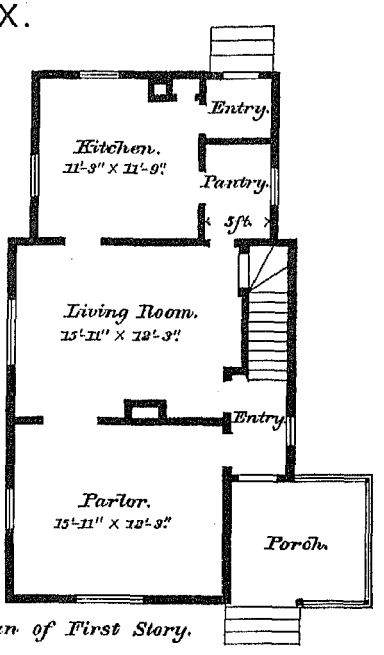




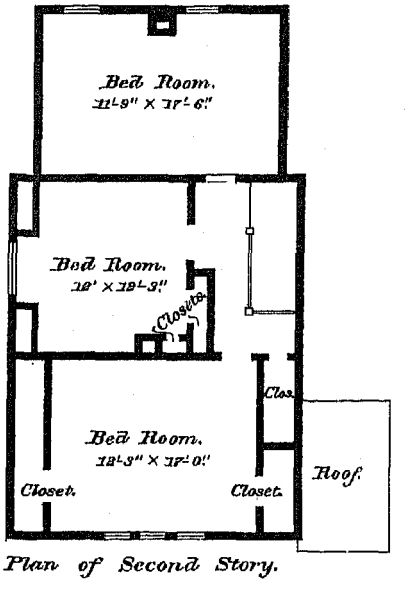
COTTAGES FOR THE OPERATIVES OF THE WILLIMANTIC LINEN COMPANY,

WILLIMANTIC, CONNECTICUT.

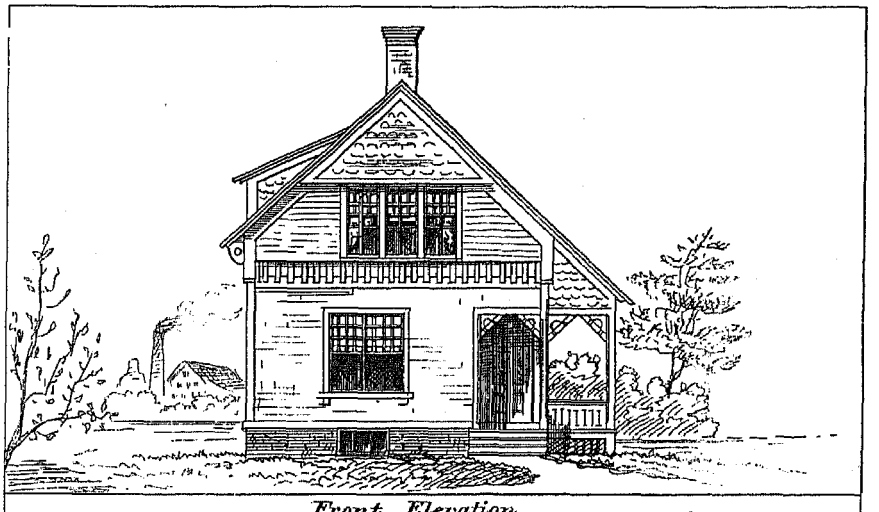
PLATE X.



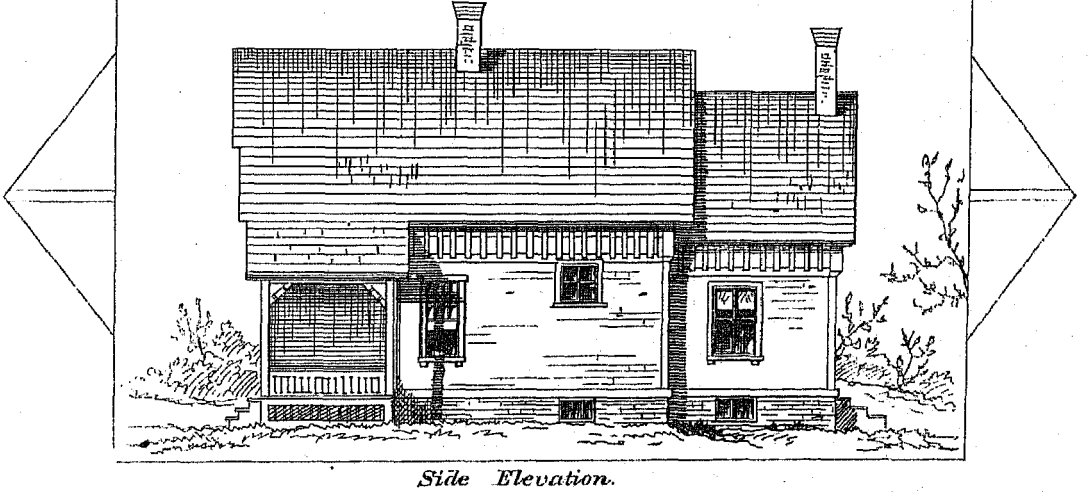
Plan of First Story.



Plan of Second Story.



Front Elevation.

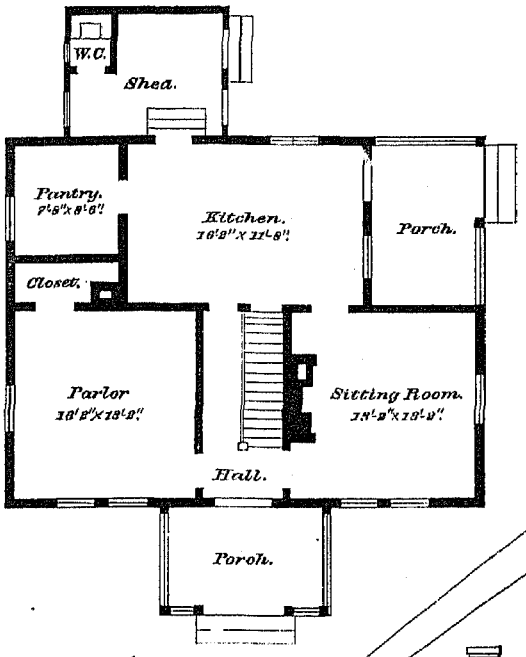


Side Elevation.

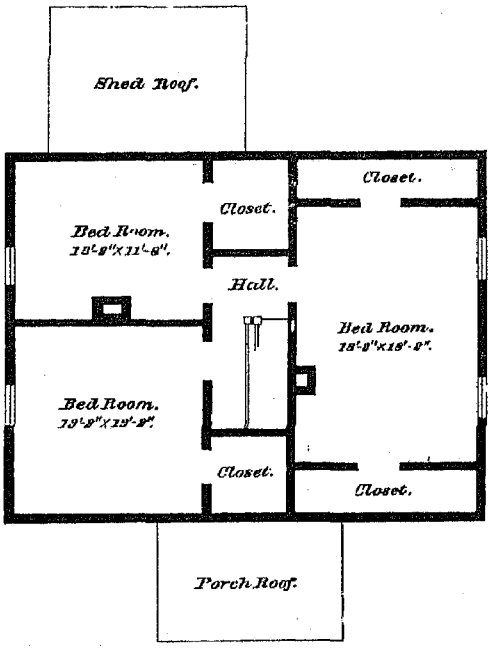
OPERATIVES' COTTAGES AT WILLIMANTIC, CONNECTICUT.

ERECTED BY THE WILLIMANTIC LINEN COMPANY.

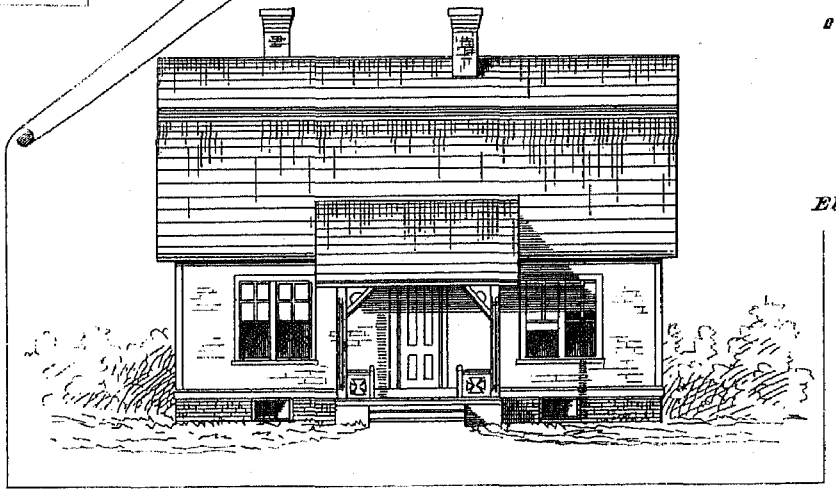
PLATE XI.



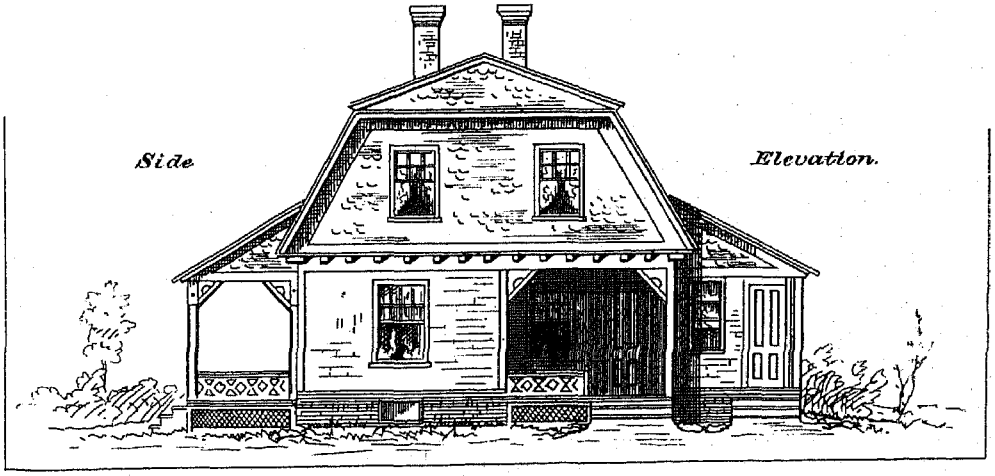
1st Floor.



2nd Floor.



Front Elevation.



Side Elevation.

OPERATIVES' HOUSES ERECTED BY THE WILLIMANTIC LINEN COMPANY,

WILLIMANTIC, CONNECTICUT.

HOUSES AT LUDLOW, MASS.

ERECTED BY THE LUDLOW MANUFACTURING COMPANY.

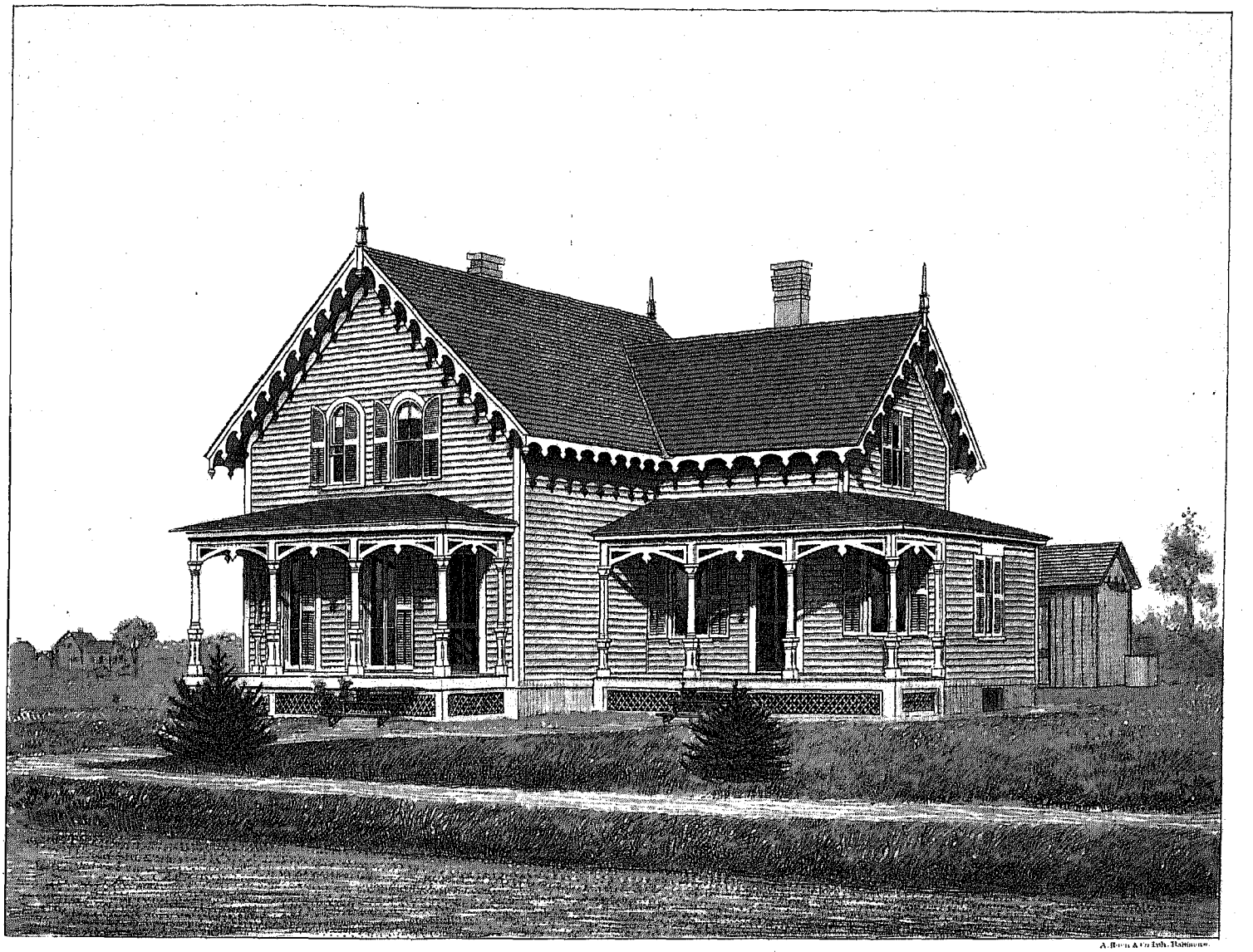
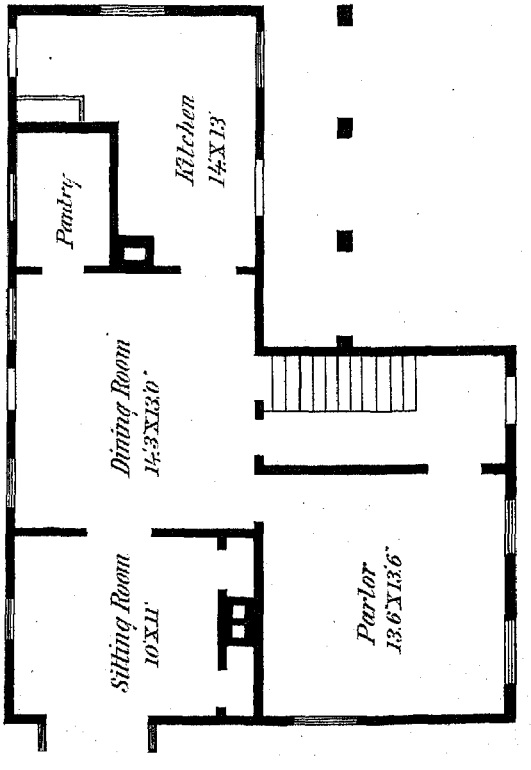
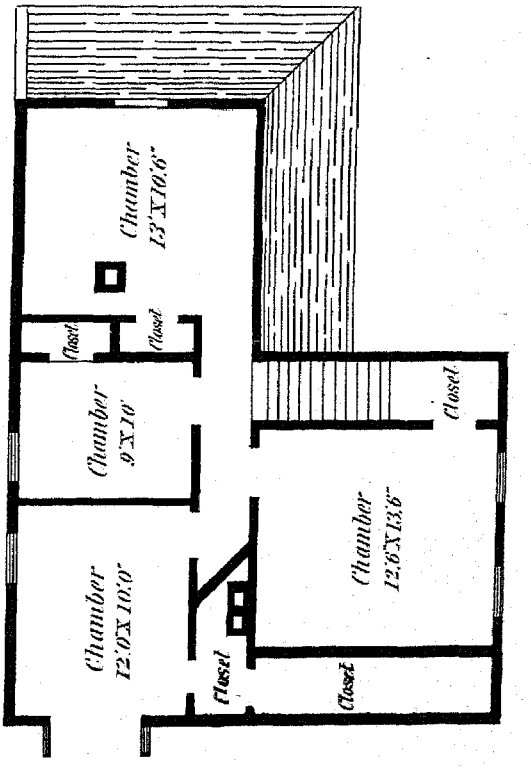


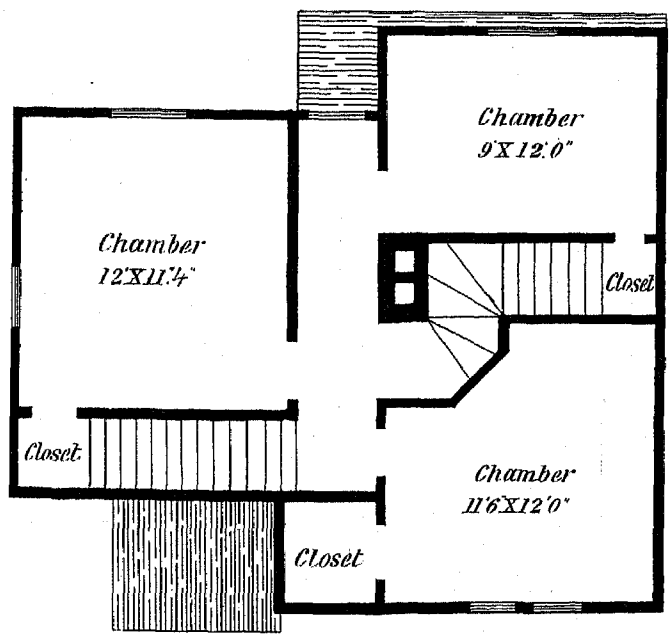
FIG. I. PERSPECTIVE VIEW.

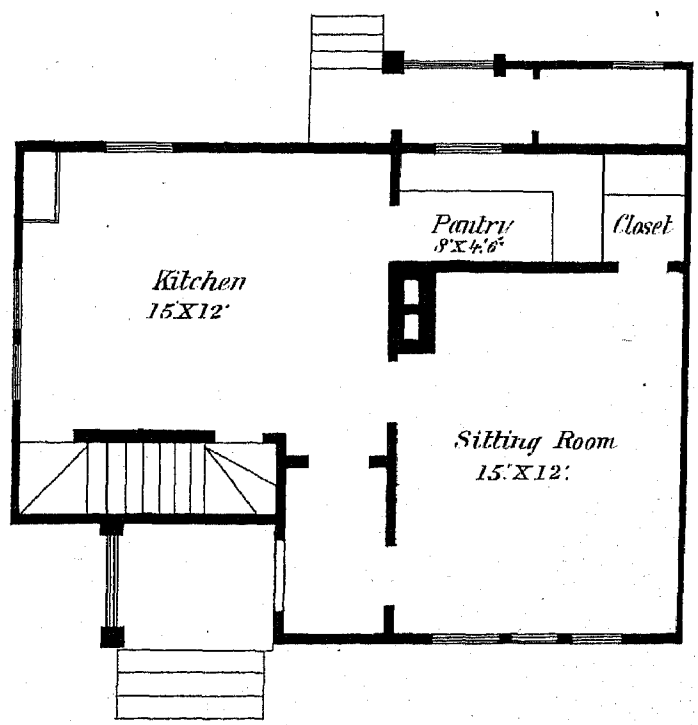




HOUSES AT LUDLOW, MASS.
ERECTED BY THE LUDLOW MANUFACTURING COMPANY.

FIG. 2. PERSPECTIVE VIEW.





HOUSES AT LUDLOW, MASS.

ERECTED BY THE LUDLOW MANUFACTURING COMPANY.

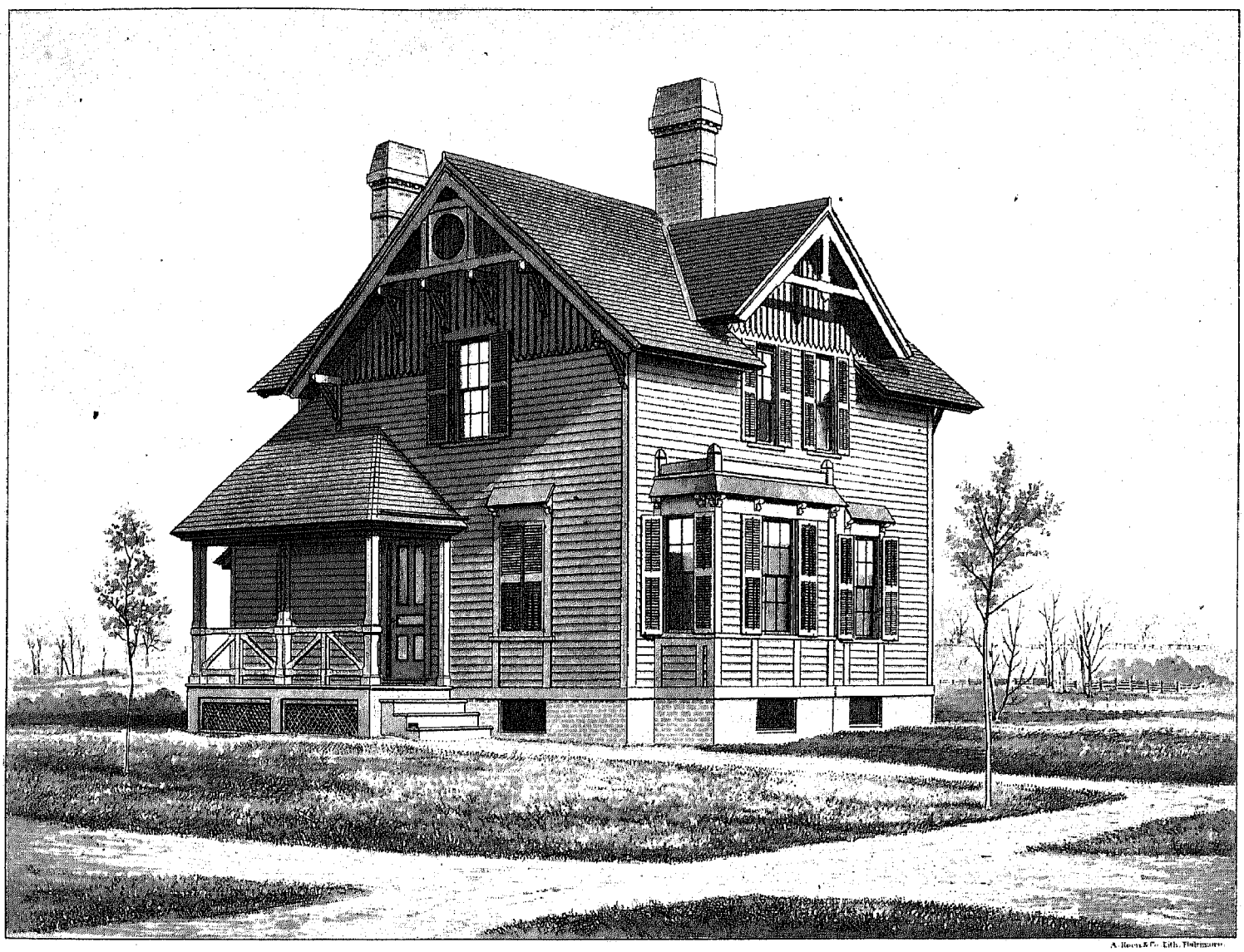
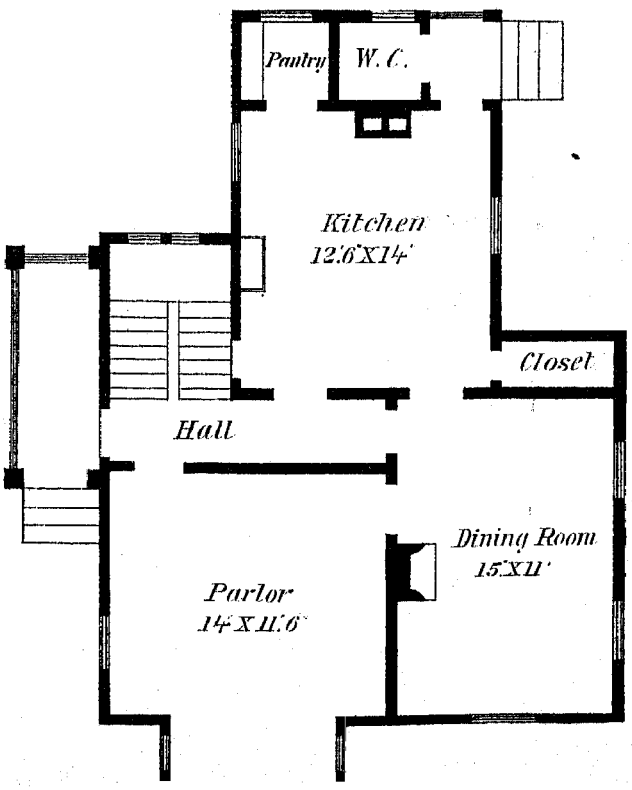
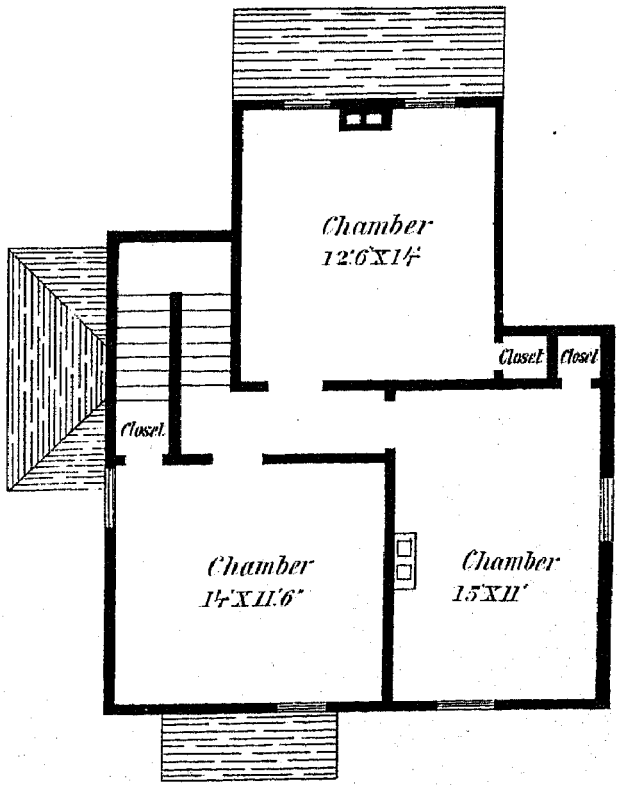


FIG. 3. PERSPECTIVE VIEW.





HOUSES AT LUDLOW, MASS.

ERECTED BY THE LUDLOW MANUFACTURING COMPANY.

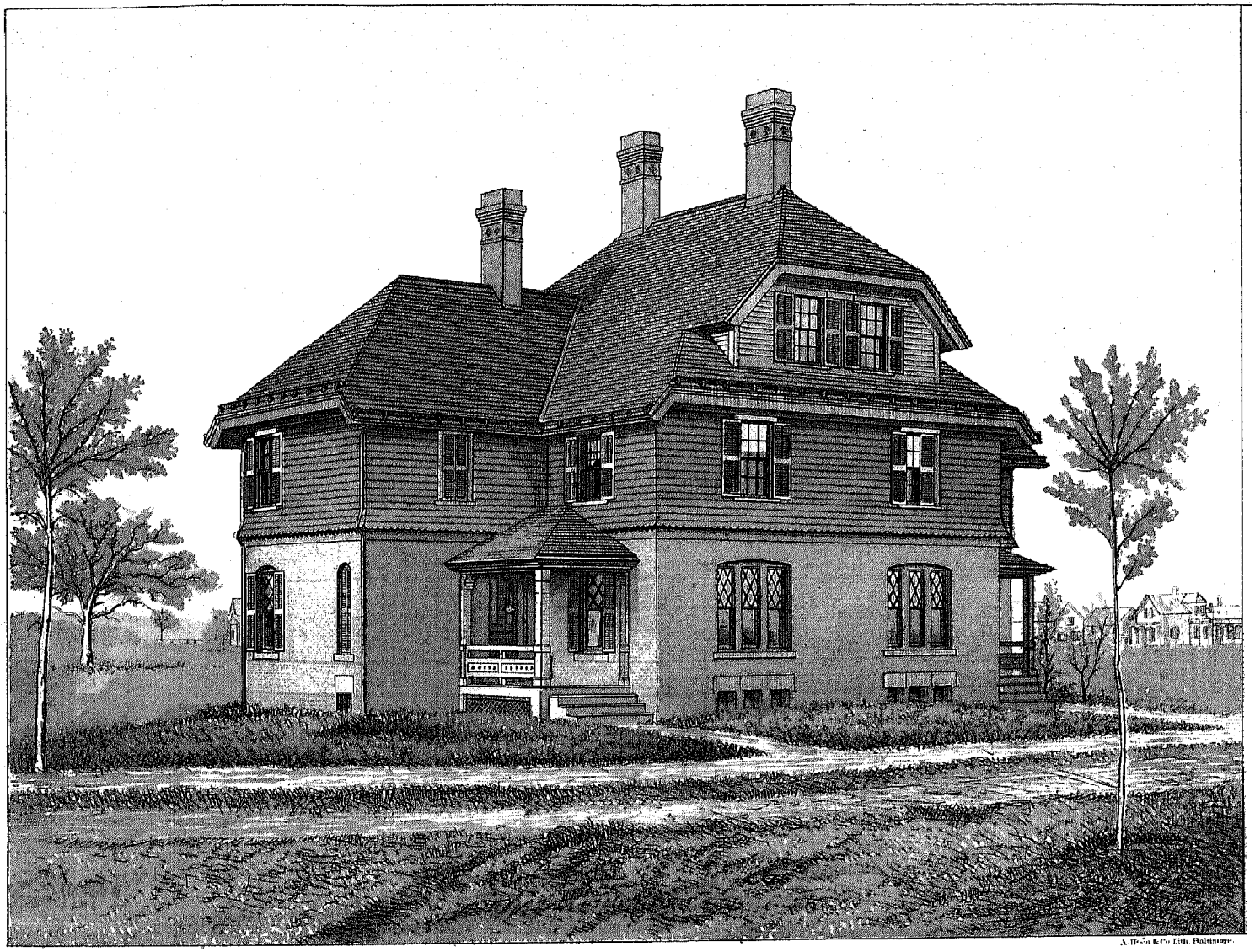
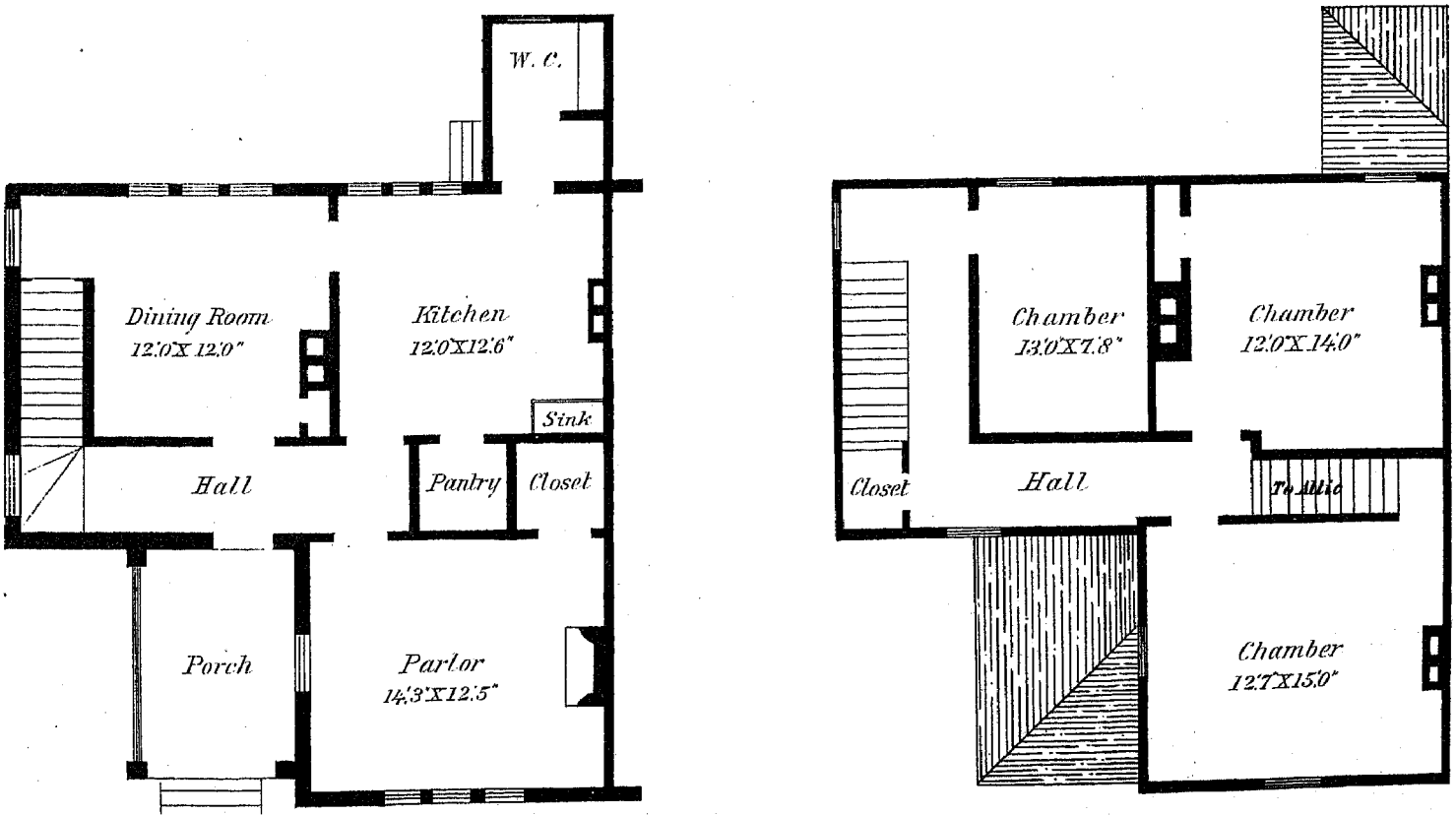
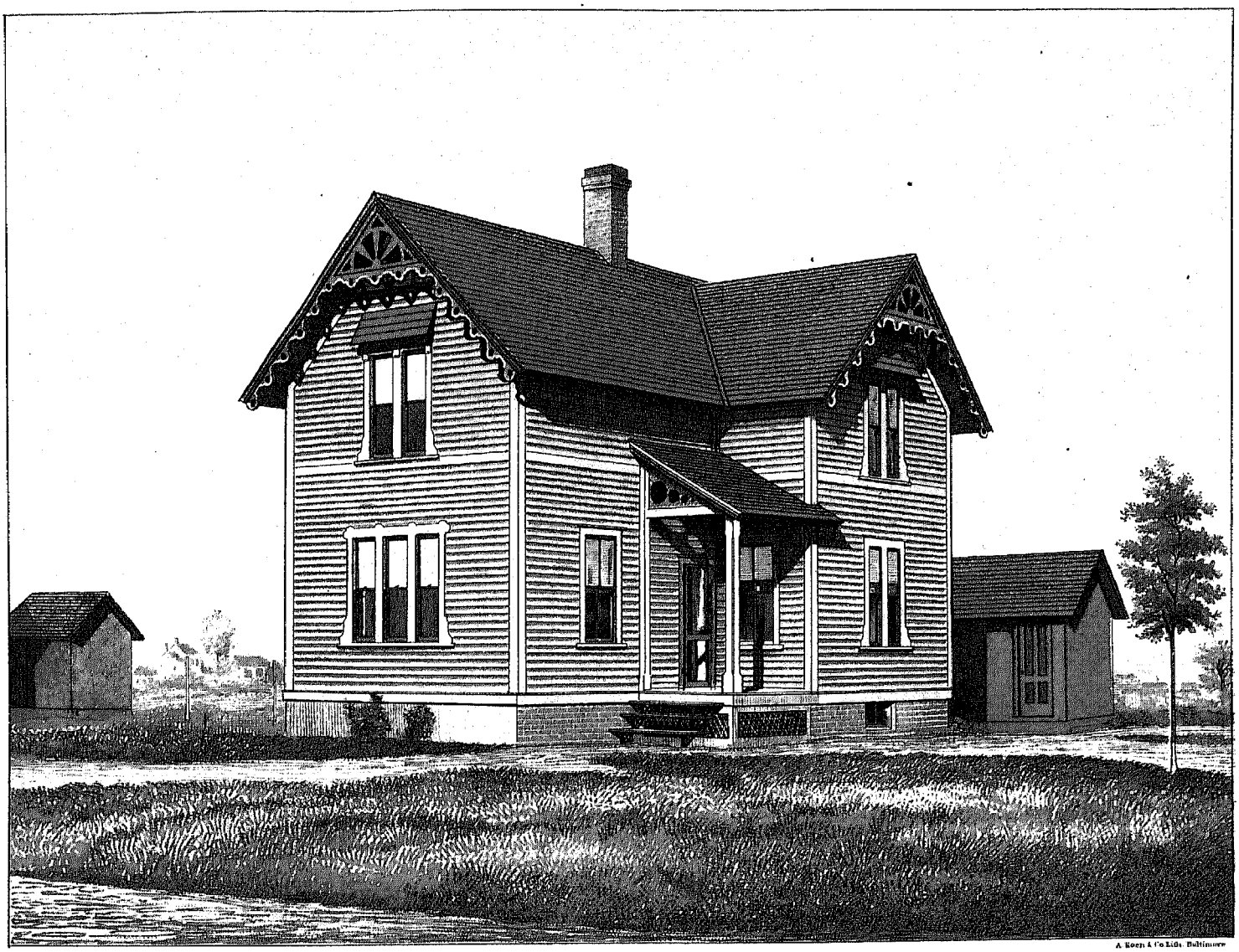


FIG. 1. PERSPECTIVE VIEW.



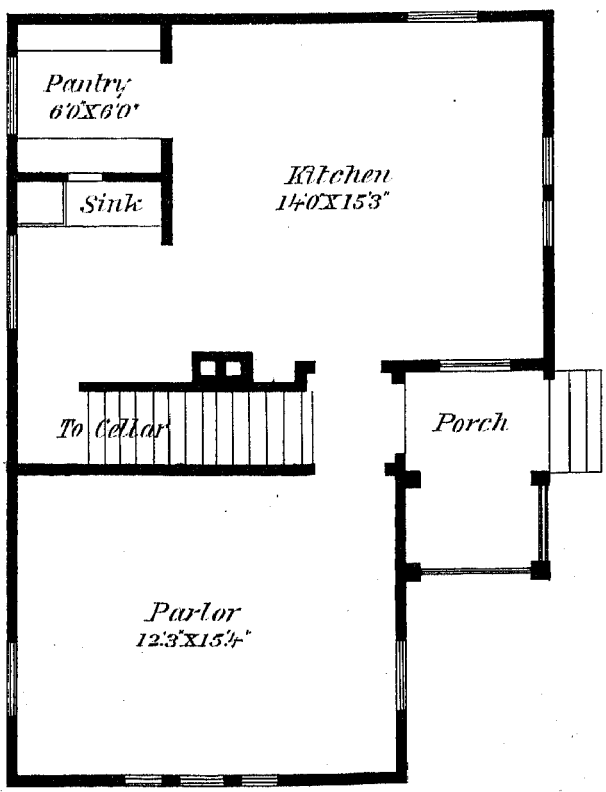
HOUSES AT LUDLOW, MASS.

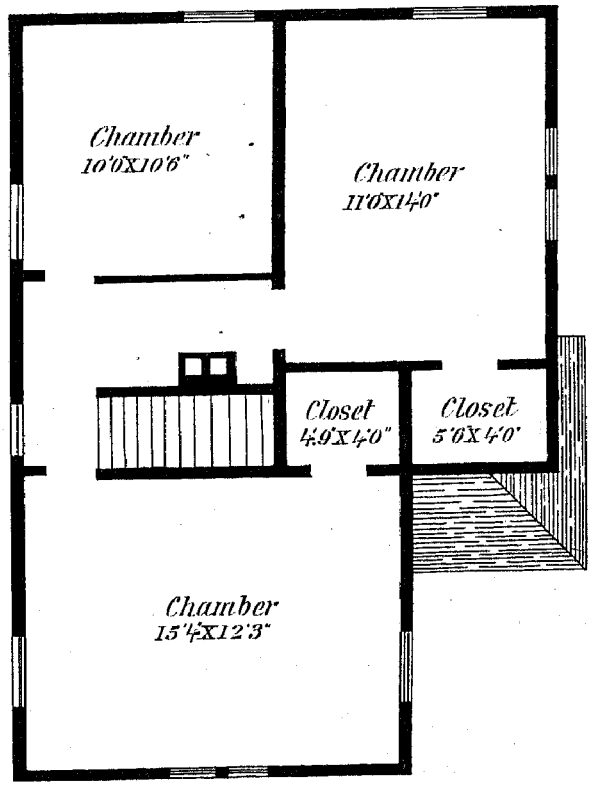
ERECTED BY THE LUDLOW MANUFACTURING COMPANY.



A. Hoen & Co. Lith. Baltimore

FIG. 2. PERSPECTIVE VIEW.





HOUSES AT LUDLOW, MASS.

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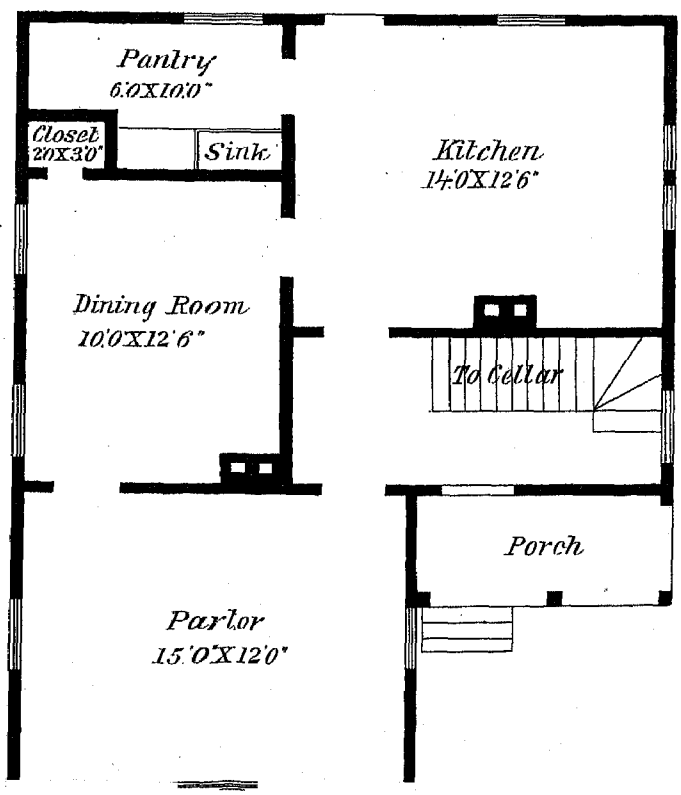
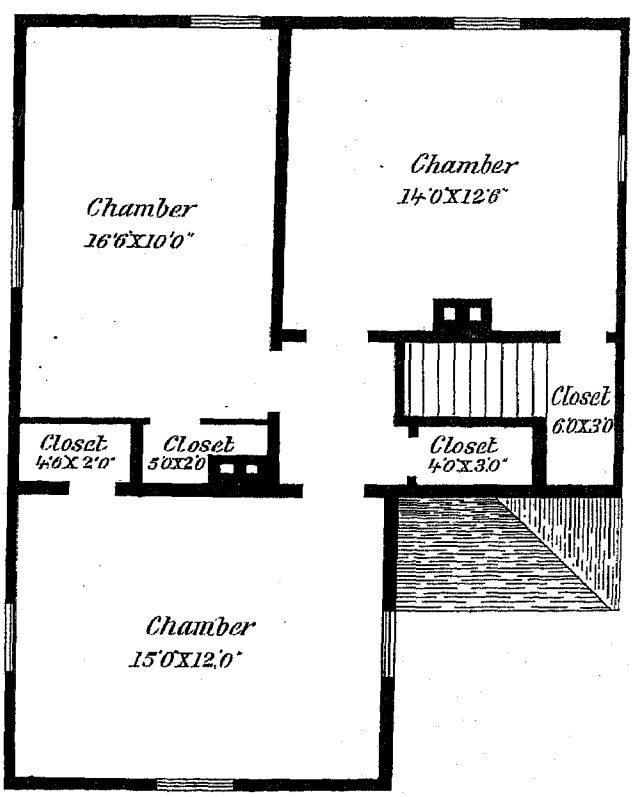
A. Hoen & Co. Lith. Baltimore.

FIG. 3. PERSPECTIVE VIEW.





depends largely upon the temper in which employers carry the responsibility intrusted to them. I know of no trust more sacred than that given into the hands of the captains of industry, for they deal with human beings in close and vital relations; not through the media of speech or of exhortation, but of positive association, and by this they can make or mar. Granted that the material is often poor, very poor, the intellects dull, and that the apathy of the operatives often offers antagonism to efforts in their behalf, then all the more sacred the trust and all the greater the responsibility. The rich and powerful employer, with the adjuncts of education and business training, holds in his hand something more than the means of subsistence for those he employs; he holds their moral well-being in his keeping, in so far as it is in his power to mold their morals, and he thus becomes something greater than a producer. At all events, he has no right to return the apathy and indifference of his people with apathy and indifference. Nor is it sufficient for him to say that the operatives he congregates accept work with its consequences, as he is not justified in placing men and women in jeopardy, physically, without providing and insisting upon the adoption of sufficient precaution. Law and public sentiment, or both, in the future will insist upon the saving of the moral characters of operatives as well as their limbs and lives; and they will insist, too, upon means for protecting the child of a woman obliged to toil in the factories before as well as after its birth.

The facts from the industrial history of nations, not the gift of prophecy, enable us to foretell the future of a system which has in it more possibilities for good for the masses who must work for day wages than any scheme which has been devised by philanthropy alone. This may sound like sentiment; I am willing to call it sentiment; but I know it means the best material prosperity, and I know that every employer who has been guided by such sentiment has been rewarded twofold: first, in witnessing wonderful improvement in his people; and second, in counting an increase in his dividends and in the wages of his operatives.

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